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(54) Title: GENES, COMPOSITIONS, KITS, AND METHOD FOR IDENTIFICATION, ASSESSMENT, PREVENTION AND THERAPY OF OVARIAN CANCER

(57) Abstract: The invention relates to compositions, kits, and methods for detecting, characterizing, preventing, and treating human ovarian cancers. A variety of novel markers are provided, wherein changes in the levels of expression of one or more of the markers is correlated with the presence of ovarian cancer.

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COMPOSITIONS, KITS, AND METHODS FOR
IDENTIFICATION, ASSESSMENT, PREVENTION, AND THERAPY OF
OVARIAN CANCER

5 RELATED APPLICATIONS

The present application claims priority to U.S. provisional patent application serial no. 60/191,031 filed on March 21, 2000, U.S. provisional patent application serial no. 60/207,124, filed on May 25, 2000, U.S. provisional patent application serial no. 60/211,940, filed on June 15, 2000, U.S. provisional patent application serial no. 10 60/216,820, filed on July 7, 2000, U.S. provisional patent application serial no. 60/220,661, filed on July 25, 2000, and U.S. provisional patent application serial no. 60/257,672, filed on December 21, 2000, all of which are expressly incorporated by reference.

15 FIELD OF THE INVENTION

The field of the invention is ovarian cancer, including diagnosis, characterization, management, and therapy of ovarian cancer.

BACKGROUND OF THE INVENTION

20 Ovarian cancer is responsible for significant morbidity and mortality in populations around the world. Ovarian cancer is classified, on the basis of clinical and pathological features, in three groups, namely epithelial ovarian cancer (EOC; >90% of ovarian cancer in Western countries), germ cell tumors (*circa* 2-3% of ovarian cancer), and stromal ovarian cancer (*circa* 5% of ovarian cancer; Ozols *et al.*, 1997, *Cancer* 25 *Principles and Practice of Oncology*, 5th ed., DeVita *et al.*, Eds. pp. 1502). Relative to EOC, germ cell tumors and stromal ovarian cancers are more easily detected and treated at an early stage, translating into higher/better survival rates for patients afflicted with these two types of ovarian cancer.

There are numerous types of ovarian tumors, some of which are benign, and 30 others of which are malignant. Treatment (including non-treatment) options and predictions of patient outcome depend on accurate classification of the ovarian cancer. Ovarian cancers are named according to the type of cells from which the cancer is

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derived and whether the ovarian cancer is benign or malignant. Recognized histological tumor types include, for example, serous, mucinous, endometrioid, and clear cell tumors. In addition, ovarian cancers are classified according to recognized grade and stage scales.

- 5 In grade I, the tumor tissue is well differentiated from normal ovarian tissue. In grade II, tumor tissue is moderately well differentiated. In grade III, the tumor tissue is poorly differentiated from normal tissue, and this grade correlates with a less favorable prognosis than grades I and II. Stage I is generally confined within the capsule surrounding one (stage IA) or both (stage IB) ovaries, although in some stage I (*i.e.*
- 10 stage IC) cancers, malignant cells may be detected in ascites, in peritoneal rinse fluid, or on the surface of the ovaries. Stage II involves extension or metastasis of the tumor from one or both ovaries to other pelvic structures. In stage IIA, the tumor extends or has metastasized to the uterus, the fallopian tubes, or both. Stage IIB involves extension of the tumor to the pelvis. Stage IIC is stage IIA or IIB in which malignant cells may be
- 15 detected in ascites, in peritoneal rinse fluid, or on the surface of the ovaries. In stage III, the tumor comprises at least one malignant extension to the small bowel or the omentum, has formed extrapelvic peritoneal implants of microscopic (stage IIIA) or macroscopic (< 2 centimeter diameter, stage IIIB; > 2 centimeter diameter, stage IIIC) size, or has metastasized to a retroperitoneal or inguinal lymph node (an alternate
- 20 indicator of stage IIIC). In stage IV, distant (*i.e.* non-peritoneal) metastases of the tumor can be detected.

- The durations of the various stages of ovarian cancer are not presently known, but are believed to be at least about a year each (Richart *et al.*, 1969, *Am. J. Obstet. Gynecol.* 105:386). Prognosis declines with increasing stage designation. For example,
- 25 5-year survival rates for patients diagnosed with stage I, II, III, and IV ovarian cancer are 80%, 57%, 25%, and 8%, respectively.

- Despite being the third most prevalent gynecological cancer, ovarian cancer is the leading cause of death among those afflicted with gynecological cancers. The disproportionate mortality of ovarian cancer is attributable to a substantial absence of
- 30 symptoms among those afflicted with early-stage ovarian cancer and to difficulty diagnosing ovarian cancer at an early stage. Patients afflicted with ovarian cancer most often present with non-specific complaints, such as abnormal vaginal bleeding,

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gastrointestinal symptoms, urinary tract symptoms, lower abdominal pain, and generalized abdominal distension. These patients rarely present with paraneoplastic symptoms or with symptoms which clearly indicate their affliction. Presently, less than about 40% of patients afflicted with ovarian cancer present with stage I or stage II.

- 5 Management of ovarian cancer would be significantly enhanced if the disease could be detected at an earlier stage, when treatments are much more generally efficacious.

Ovarian cancer may be diagnosed, in part, by collecting a routine medical history from a patient and by performing physical examination, x-ray examination, and chemical and hematological studies on the patient. Hematological tests which may be
10 indicative of ovarian cancer in a patient include analyses of serum levels of proteins designated CA125 and DF3 and plasma levels of lysophosphatidic acid (LPA). Palpation of the ovaries and ultrasound techniques (particularly including endovaginal ultrasound and color Doppler flow ultrasound techniques) can aid detection of ovarian tumors and differentiation of ovarian cancer from benign ovarian cysts. However, a
15 definitive diagnosis of ovarian cancer typically requires performing exploratory laparotomy of the patient.

Potential tests for the detection of ovarian cancer (*e.g.*, screening, reflex or monitoring) may be characterized by a number of factors. The "sensitivity" of an assay refers to the probability that the test will yield a positive result in an individual afflicted
20 with ovarian cancer. The "specificity" of an assay refers to the probability that the test will yield a negative result in an individual not afflicted with ovarian cancer. The "positive predictive value" (PPV) of an assay is the ratio of true positive results (*i.e.* positive assay results for patients afflicted with ovarian cancer) to all positive results (*i.e.* positive assay results for patients afflicted with ovarian cancer + positive assay
25 results for patients not afflicted with ovarian cancer). It has been estimated that in order for an assay to be an appropriate population-wide screening tool for ovarian cancer the assay must have a PPV of at least about 10% (Rosenthal *et al.*, 1998, *Sem. Oncol.* 25:315-325). It would thus be desirable for a screening assay for detecting ovarian cancer in patients to have a high sensitivity and a high PPV. Monitoring and reflex tests
30 would also require appropriate specifications.

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Owing to the cost, limited sensitivity, and limited specificity of known methods of detecting ovarian cancer, screening is not presently performed for the general population. In addition, the need to perform laparotomy in order to diagnose ovarian cancer in patients who screen positive for indications of ovarian cancer limits the desirability of population-wide screening, such that a PPV even greater than 10% would be desirable.

Prior use of serum CA125 level as a diagnostic marker for ovarian cancer indicated that this method exhibited insufficient specificity for use as a general screening method. Use of a refined algorithm for interpreting CA125 levels in serial retrospective samples obtained from patients improved the specificity of the method without shifting detection of ovarian cancer to an earlier stage (Skakes, 1995, *Cancer* 76:2004). Screening for LPA to detect gynecological cancers including ovarian cancer exhibited a sensitivity of about 96% and a specificity of about 89%. However, CA125-based screening methods and LPA-based screening methods are hampered by the presence of CA125 and LPA, respectively, in the serum of patients afflicted with conditions other than ovarian cancer. For example, serum CA125 levels are known to be associated with menstruation, pregnancy, gastrointestinal and hepatic conditions such as colitis and cirrhosis, pericarditis, renal disease, and various non-ovarian malignancies. Serum LPA is known, for example, to be affected by the presence of non-ovarian gynecological malignancies. A screening method having a greater specificity for ovarian cancer than the current screening methods for CA125 and LPA could provide a population-wide screening for early stage ovarian cancer.

Presently greater than about 60% of ovarian cancers diagnosed in patients are stage III or stage IV cancers. Treatment at these stages is largely limited to cytoreductive surgery (when feasible) and chemotherapy, both of which aim to slow the spread and development of metastasized tumor. Substantially all late stage ovarian cancer patients currently undergo combination chemotherapy as primary treatment, usually a combination of a platinum compound and a taxane. Median survival for responding patients is about one year. Combination chemotherapy involving agents such as doxorubicin, cyclophosphamide, cisplatin, hexamethylmelamine, paclitaxel, and methotrexate may improve survival rates in these groups, relative to single-agent therapies. Various recently-developed chemotherapeutic agents and treatment regimens

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have also demonstrated usefulness for treatment of advanced ovarian cancer. For example, use of the topoisomerase I inhibitor topotecan, use of amifostine to minimize chemotherapeutic side effects, and use of intraperitoneal chemotherapy for patients having peritoneally implanted tumors have demonstrated at least limited utility.

- 5 Presently, however, the 5-year survival rate for patients afflicted with stage III ovarian cancer is 25%, and the survival rate for patients afflicted with stage IV ovarian cancer is 8%.

In summary, the earlier ovarian cancer is detected, the aggressiveness of therapeutic intervention and the side effects associated with therapeutic intervention are
10 minimized. More importantly, the earlier the cancer is detected, the survival rate and quality of life of ovarian cancer patients is enhanced. Thus, a pressing need exists for methods of detecting ovarian cancer as early as possible. There also exists a need for methods of detecting recurrence of ovarian cancer as well as methods for predicting and monitoring the efficacy of treatment. The present invention satisfies these needs.

15

SUMMARY OF THE INVENTION

The invention relates to novel genes associated with ovarian cancer as well as methods of assessing whether a patient is afflicted with ovarian cancer. This method comprises the step of comparing the level of expression of a marker in a patient sample,
20 wherein the marker is listed in Tables 1-2, and the normal level of expression of the marker in a control, *e.g.*, a sample from a patient without ovarian cancer. A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer. Preferably, a protein corresponding to the marker is a secreted protein. Alternatively, the marker
25 can correspond to a protein having an extracellular portion, to one which is normally expressed in ovarian tissue at a detectable level, or both.

In one method, the marker(s) are preferably selected such that the positive predictive value of the method is at least about 10%. Also preferred are embodiments of the method wherein the marker is over- or under-expressed by at least two-fold in at
30 least about 20% of stage I ovarian cancer patients, stage II ovarian cancer patients, stage III ovarian cancer patients, stage IV ovarian cancer patients, grade I ovarian cancer patients, grade II ovarian cancer patients, grade III ovarian cancer patients, epithelial

ovarian cancer patients, stromal ovarian cancer patients, germ cell ovarian cancer patients, malignant ovarian cancer patients, benign ovarian patients, serous neoplasm ovarian cancer patients, mucinous neoplasm ovarian cancer patients, endometrioid neoplasm ovarian cancer patients and/or clear cell neoplasm ovarian cancer patients.

5 In one embodiment of the methods of the present invention, the patient sample is an ovary-associated body fluid. Such fluids include, for example, blood fluids, lymph, ascitic fluids, gynecological fluids, cystic fluids, urine, and fluids collected by peritoneal rinsing. In another embodiment, the sample comprises cells obtained from the patient. In this embodiment, the cells may be found in a fluid selected from the group consisting
10 of a fluid collected by peritoneal rinsing, a fluid collected by uterine rinsing, a uterine fluid, a uterine exudate, a pleural fluid, and an ovarian exudate. In another embodiment, the patient sample is *in vivo*.

 In accordance with the methods of the present invention, the level of expression of the marker in a sample can be assessed, for example, by detecting the presence in the
15 sample of :

- a protein corresponding to the marker or fragment of the protein (*e.g.* using a reagent, such as an antibody, an antibody derivative, or an antibody fragment, which binds specifically with the protein)
- 20 • a transcribed polynucleotide (*e.g.* an mRNA or a cDNA), or fragment thereof, having at least a portion with which the marker is substantially homologous (*e.g.* by contacting a mixture of transcribed polynucleotides obtained from the sample with a substrate having one or more of the markers listed in Tables 1-2 fixed thereto at selected positions)
- 25 • a transcribed polynucleotide or fragment thereof, wherein the polynucleotide anneals with the marker under stringent hybridization conditions.
- a metabolite which is produced directly (*i.e.*, catalyzed) or indirectly by a protein corresponding to the marker

 The methods of the present invention are particularly useful for patients with an
30 identified pelvic mass or symptoms associated with ovarian cancer. The methods of the present invention can also be of particular use with patients having an enhanced risk of developing ovarian cancer (*e.g.*, patients having a familial history of ovarian cancer,

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patients identified as having a mutant oncogene, and patients at least about 50 years of age). The methods of the present invention may further be of particular use in monitoring the efficacy of treatment of an ovarian cancer patient (*e.g.* the efficacy of chemotherapy).

5 The methods of the present invention may be performed using a plurality (*e.g.* 2, 3, 5, or 10 or more) of markers. According to a method involving a plurality of markers, the level of expression in the sample of each of a plurality of markers independently selected from the markers listed in Tables 1-2 is compared with the normal level of expression of each of the plurality of markers in samples of the same type obtained from
10 control humans not afflicted with ovarian cancer. The markers of Tables 1-2 may also be used in combination with known ovarian cancer markers in the methods of the present invention.

 In a preferred method of assessing whether a patient is afflicted with ovarian cancer (*e.g.*, new detection ("screening"), detection of recurrence, reflex testing), the
15 method comprises comparing:

- a) the level of expression of a marker in a patient sample, wherein at least one marker is selected from the markers of Tables 1-2, and
- b) the normal level of expression of the marker in a control non-ovarian cancer sample.

20 A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer.

 The methods of the present invention further include a method of assessing the efficacy of a test compound for inhibiting ovarian cancer in a patient. This method
25 comprises comparing:

- a) expression of a marker in a first sample obtained from the patient and maintained in the presence of the test compound, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and

30 b) expression of the marker in a second sample obtained from the patient and maintained in the absence of the test compound.

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A significant difference between the level of expression of the marker in the first sample, relative to the second sample, is an indication that the test compound is efficacious for inhibiting ovarian cancer in the patient. For example, the first and second samples can be portions of a single sample obtained from the patient or portions of pooled samples obtained from the patient.

The invention further relates to a method of assessing the efficacy of a therapy for inhibiting ovarian cancer in a patient. This method comprises comparing:

- a) expression of a marker in a first sample obtained from the patient prior to providing at least a portion of the therapy to the patient, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
- b) expression of the marker in a second sample obtained from the patient following provision of the portion of the therapy.

A significant difference between the level of expression of the marker in the second sample, relative to the first sample, is an indication that the therapy is efficacious for inhibiting ovarian cancer in the patient.

It will be appreciated that in these methods the "therapy" may be any traditional therapy for treating ovarian cancer including, but not limited to, chemotherapy, radiation therapy and surgical removal of tissue, *e.g.*, an ovarian tumor. Thus, the methods of the invention may be used to evaluate a patient before, during and after thereapy, for example, to evaluate the reduction in tumor burden.

The present invention therefore further comprises a method for monitoring the progression of ovarian cancer in a patient, the method comprising:

- a) detecting in a patient sample at a first time point, the expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2;
- b) repeating step a) at a subsequent time point in time; and
- c) comparing the level of expression detected in steps a) and b), and therefrom monitoring the progression of ovarian cancer in the patient.

The invention also includes a method of selecting a composition for inhibiting ovarian cancer in a patient. This method comprises the steps of:

- a) obtaining a sample comprising cancer cells from the patient;

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b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;

c) comparing expression of a marker listed in Tables 1-2 in each of the aliquots; and

5 d) selecting one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

In addition, the invention includes a method of inhibiting ovarian cancer in a patient. This method comprises the steps of:

10 a) obtaining a sample comprising cancer cells from the patient;

b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;

c) comparing expression of a marker listed in Tables 1-2 in each of the aliquots; and

15 d) administering to the patient at least one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

The invention also includes a kit for assessing whether a patient is afflicted with ovarian cancer. This kit comprises reagents for assessing expression of a marker listed
20 in Tables 1-2.

In another aspect, the invention relates to a kit for assessing the suitability of each of a plurality of compounds for inhibiting an ovarian cancer in a patient. The kit comprises a reagent for assessing expression of a marker listed in Tables 1-2, and may also comprise a plurality of compounds.

25 In another aspect, the invention relates to a kit for assessing the presence of ovarian cancer cells. This kit comprises an antibody, wherein the antibody binds specifically with a protein corresponding to a marker listed in Tables 1-2. The kit may also comprise a plurality of antibodies, wherein the plurality binds specifically with a protein corresponding to a different marker listed in Tables 1-2.

30 The invention also includes a kit for assessing the presence of ovarian cancer cells, wherein the kit comprises a nucleic acid probe. The probe binds specifically with a transcribed polynucleotide corresponding to a marker listed in Tables 1-2. The kit

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may also comprise a plurality of probes, wherein each of the probes binds specifically with a transcribed polynucleotide corresponding to a different marker listed in Tables 1-2.

The invention further relates to a method of making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with ovarian cancer. The method comprises isolating a protein corresponding to a marker listed in Tables 1-2, immunizing a mammal using the isolated protein, isolating splenocytes from the immunized mammal, fusing the isolated splenocytes with an immortalized cell line to form hybridomas, and screening individual hybridomas for production of an antibody which specifically binds with the protein to isolate the hybridoma. The invention also includes an antibody produced by this method.

The invention further includes a method of assessing the ovarian carcinogenic potential of a test compound. This method comprises the steps of:

- a) maintaining separate aliquots of ovarian cells in the presence and absence of the test compound; and
- b) comparing expression of a marker in each of the aliquots.

The marker is selected from those listed in Tables 1-2. A significantly altered level of expression of the marker in the aliquot maintained in the presence of (or exposed to) the test compound, relative to the aliquot maintained in the absence of the test compound, is an indication that the test compound possesses ovarian carcinogenic potential.

Additionally, the invention includes a kit for assessing the ovarian carcinogenic potential of a test compound. The kit comprises ovarian cells and a reagent for assessing expression of a marker in each of the aliquots. The marker is selected from those listed in Tables 1-2.

The invention further relates to a method of treating a patient afflicted with ovarian cancer or at risk of developing ovarian cancer. This method comprises enhancing expression of a marker listed in Tables 1-2 or providing to cells of the patient a protein corresponding to a marker listed in Tables 1-2, wherein the marker is underexpressed in patients afflicted with ovarian cancer. The protein can be provided to the cells, for example, by providing a vector comprising a polynucleotide encoding the protein to the cells.

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The invention includes another method of treating a patient afflicted with ovarian cancer or at risk of developing ovarian cancer. This method comprises inhibiting expression or overexpression of a marker listed in Tables 1-2 by, e.g., providing to cells of the patient an antisense oligonucleotide complementary to a polynucleotide
5 corresponding to a marker listed in Tables 1-2, wherein the marker is overexpressed in patients afflicted with ovarian cancer.

It will be appreciated that the methods and kits of the present invention may also include known cancer markers including known ovarian cancer markers. It will further be appreciated that the methods and kits may be used to identify cancers other than
10 ovarian cancer.

DETAILED DESCRIPTION OF THE INVENTION

The invention relates to newly discovered genes associated with the cancerous state of ovarian cells. It has been discovered that the level of expression of individual
15 genes, also referred to as markers, and combinations of these genes, correlates with the presence of ovarian cancer in a patient. Methods are provided for detecting the presence of ovarian cancer in a sample, the absence of ovarian cancer in a sample, the stage of an ovarian cancer, and with other characteristics of ovarian cancer that are relevant to prevention, diagnosis, characterization, and therapy of ovarian cancer in a patient.

20

Definitions

As used herein, each of the following terms has the meaning associated with it in this section.

The articles "a" and "an" are used herein to refer to one or to more than one (*i.e.*
25 to at least one) of the grammatical object of the article. By way of example, "an element" means one element or more than one element.

A "marker" is a naturally-occurring polymer corresponding to at least one of the novel nucleic acids listed in Tables 1-2. For example, markers include, without limitation, sense and anti-sense strands of genomic DNA (*i.e.* including any introns
30 occurring therein), RNA generated by transcription of genomic DNA (*i.e.* prior to splicing), RNA generated by splicing of RNA transcribed from genomic DNA, and proteins generated by translation of spliced RNA (*i.e.* including proteins both before and

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after cleavage of normally cleaved regions such as transmembrane signal sequences). As used herein, "marker" may also include a cDNA made by reverse transcription of an RNA generated by transcription of genomic DNA (including spliced RNA).

The term "probe" refers to any molecule which is capable of selectively binding to a specifically intended target molecule, for example a marker of the invention. Probes can be either synthesized by one skilled in the art, or derived from appropriate biological preparations. For purposes of detection of the target molecule, probes may be specifically designed to be labeled, as described herein. Examples of molecules that can be utilized as probes include, but are not limited to, RNA, DNA, proteins, antibodies, and organic monomers.

An "ovary-associated" body fluid is a fluid which, when in the body of a patient, contacts or passes through ovarian cells or into which cells or proteins shed from ovarian cells *e.g.* ovarian epithelium, are capable of passing. Exemplary ovary-associated body fluids include blood fluids, lymph, ascites, gynecological fluids, cystic fluid, urine, and fluids collected by peritoneal rinsing.

The "normal" level of expression of a marker is the level of expression of the marker in ovarian cells of a patient, *e.g.* a human, not afflicted with ovarian cancer.

"Over-expression" and "under-expression" of a marker refer to expression of the marker of a patient at a greater or lesser level, respectively, than normal level of expression of the marker (*e.g.* at least two-fold greater or lesser level).

As used herein, the term "promoter/regulatory sequence" means a nucleic acid sequence which is required for expression of a gene product operably linked to the promoter/regulatory sequence. In some instances, this sequence may be the core promoter sequence and in other instances, this sequence may also include an enhancer sequence and other regulatory elements which are required for expression of the gene product. The promoter/regulatory sequence may, for example, be one which expresses the gene product in a tissue-specific manner.

A "constitutive" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell under most or all physiological conditions of the cell.

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An "inducible" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell substantially only when an inducer which corresponds to the promoter is present in the cell.

- 5 A "tissue-specific" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell substantially only if the cell is a cell of the tissue type corresponding to the promoter.

- 10 A "transcribed polynucleotide" is a polynucleotide (*e.g.* an RNA, a cDNA, or an analog of one of an RNA or cDNA) which is complementary to or homologous with all or a portion of a mature RNA made by transcription of a genomic DNA corresponding to a marker of the invention and normal post-transcriptional processing (*e.g.* splicing), if any, of the transcript.

- 15 "Complementary" refers to the broad concept of sequence complementarity between regions of two nucleic acid strands or between two regions of the same nucleic acid strand. It is known that an adenine residue of a first nucleic acid region is capable of forming specific hydrogen bonds ("base pairing") with a residue of a second nucleic acid region which is antiparallel to the first region if the residue is thymine or uracil. Similarly, it is known that a cytosine residue of a first nucleic acid strand is capable of
- 20 base pairing with a residue of a second nucleic acid strand which is antiparallel to the first strand if the residue is guanine. A first region of a nucleic acid is complementary to a second region of the same or a different nucleic acid if, when the two regions are arranged in an antiparallel fashion, at least one nucleotide residue of the first region is capable of base pairing with a residue of the second region. Preferably, the first region
- 25 comprises a first portion and the second region comprises a second portion, whereby, when the first and second portions are arranged in an antiparallel fashion, at least about 50%, and preferably at least about 75%, at least about 90%, or at least about 95% of the nucleotide residues of the first portion are capable of base pairing with nucleotide residues in the second portion. More preferably, all nucleotide residues of the first
- 30 portion are capable of base pairing with nucleotide residues in the second portion.

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"Homologous" as used herein, refers to nucleotide sequence similarity between two regions of the same nucleic acid strand or between regions of two different nucleic acid strands. When a nucleotide residue position in both regions is occupied by the same nucleotide residue, then the regions are homologous at that position. A first region is homologous to a second region if at least one nucleotide residue position of each region is occupied by the same residue. Homology between two regions is expressed in terms of the proportion of nucleotide residue positions of the two regions that are occupied by the same nucleotide residue. By way of example, a region having the nucleotide sequence 5'-ATTGCC-3' and a region having the nucleotide sequence 5'-TATGGC-3' share 50% homology. Preferably, the first region comprises a first portion and the second region comprises a second portion, whereby, at least about 50%, and preferably at least about 75%, at least about 90%, or at least about 95% of the nucleotide residue positions of each of the portions are occupied by the same nucleotide residue. More preferably, all nucleotide residue positions of each of the portions are occupied by the same nucleotide residue.

A marker is "fixed" to a substrate if it is covalently or non-covalently associated with the substrate such the substrate can be rinsed with a fluid (*e.g.* standard saline citrate, pH 7.4) without a substantial fraction of the marker dissociating from the substrate.

As used herein, a "naturally-occurring" nucleic acid molecule refers to an RNA or DNA molecule having a nucleotide sequence that occurs in nature (*e.g.* encodes a natural protein).

Expression of a marker in a patient is "significantly" higher or lower than the normal level of expression of a marker if the level of expression of the marker is greater or less, respectively, than the normal level by an amount greater than the standard error of the assay employed to assess expression, and preferably at least twice, and more preferably three, four, five or ten times that amount. Alternately, expression of the marker in the patient can be considered "significantly" higher or lower than the normal level of expression if the level of expression is at least about two, and preferably at least about three, four, or five times, higher or lower, respectively, than the normal level of expression of the marker.

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Ovarian cancer is "inhibited" if at least one symptom of the cancer is alleviated, terminated, slowed, or prevented. As used herein, ovarian cancer is also "inhibited" if recurrence or metastasis of the cancer is reduced, slowed, delayed, or prevented.

A kit is any manufacture (*e.g.* a package or container) comprising at least one reagent, *e.g.* a probe, for specifically detecting a marker of the invention, the manufacture being promoted, distributed, or sold as a unit for performing the methods of the present invention.

Description

The present invention is based, in part, on identification of novel markers which are over-expressed in ovarian cancer cells as compared to their expression in normal (*i.e.* non- cancerous) ovarian cells. The markers of the invention correspond to DNA, RNA, and polypeptide molecules which can be detected in one or both of normal and cancerous ovarian cells. The enhanced expression of one or more of these markers in ovarian cells is herein correlated with the cancerous state of the tissue. The invention thus includes compositions, kits, and methods for assessing the cancerous state of ovarian cells (*e.g.* cells obtained from a human, cultured human cells, archived or preserved human cells and *in vivo* cells).

The compositions, kits, and methods of the invention have the following uses, among others:

- 1) assessing whether a patient is afflicted with ovarian cancer;
- 2) assessing the stage of ovarian cancer in a human patient;
- 3) assessing the grade of ovarian cancer in a patient;
- 4) assessing the benign or malignant nature of ovarian cancer in a patient;
- 25 5) assessing the histological type of neoplasm (*e.g.* serous, mucinous, endometroid, or clear cell neoplasm) associated with ovarian cancer in a patient;
- 6) making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with ovarian cancer;
- 30 7) assessing the presence of ovarian cancer cells;
- 8) assessing the efficacy of one or more test compounds for inhibiting ovarian cancer in a patient;

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- 9) assessing the efficacy of a therapy for inhibiting ovarian cancer in a patient;
- 10) monitoring the progression of ovarian cancer in a patient;
- 11) selecting a composition or therapy for inhibiting ovarian cancer in a patient;
- 12) treating a patient afflicted with ovarian cancer;
- 13) inhibiting ovarian cancer in a patient;
- 14) assessing the ovarian carcinogenic potential of a test compound; and
- 15) inhibiting an ovarian cancer in a patient at risk for developing ovarian cancer.

The invention thus includes a method of assessing whether a patient is afflicted with ovarian cancer. This method comprises comparing the level of expression of a marker in a patient sample and the normal level of expression of the marker in a control, *e.g.*, a non-ovarian cancer sample. A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer. The marker is selected from the group consisting of the markers listed in Tables 1-2.

The polynucleotides set forth in Tables 1-2 represent previously unidentified nucleotide sequences. These nucleotide sequences were identified through subtracted library experiments described herein. Also provided by this invention are polynucleotides that correspond to the polynucleotides of Tables 1-2. In one embodiment, these polynucleotides are obtained by identification of a larger fragment or full-length coding sequence of these polynucleotides. Gene delivery vehicles, host cells, compositions and databases (all described herein) containing these polynucleotides are also provided by this invention.

Any marker or combination of markers listed in Tables 1-2, as well as any known markers in combination with the markers set forth in Tables 1-2, may be used in the compositions, kits, and methods of the present invention. In general, it is preferable to use markers for which the difference between the level of expression of the marker in ovarian cancer cells and the level of expression of the same marker in normal ovarian

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cells is as great as possible. Although this difference can be as small as the limit of detection of the method for assessing expression of the marker, it is preferred that the difference be at least greater than the standard error of the assessment method, and preferably a difference of at least 2-, 3-, 4-, 5-, 6-, 7-, 8-, 9-, 10-, 15-, 20-, 25-, 100-,
5 500-, 1000-fold or greater.

It is recognized that certain markers correspond to proteins which are secreted from ovarian cells (*i.e.* one or both of normal and cancerous cells) to the extracellular space surrounding the cells. These markers are preferably used in certain embodiments of the compositions, kits, and methods of the invention, owing to the fact that the protein
10 corresponding to each of these markers can be detected in an ovary-associated body fluid sample, which may be more easily collected from a human patient than a tissue biopsy sample. In addition, preferred *in vivo* techniques for detection of a protein corresponding to a marker of the invention include introducing into a subject a labeled antibody directed against the protein. For example, the antibody can be labeled with a
15 radioactive marker whose presence and location in a subject can be detected by standard imaging techniques.

It is a simple matter for the skilled artisan to determine whether any particular marker corresponds to a secreted protein. In order to make this determination, the protein corresponding to a marker is expressed in a test cell (*e.g.* a cell of an ovarian cell
20 line), extracellular fluid is collected, and the presence or absence of the protein in the extracellular fluid is assessed (*e.g.* using a labeled antibody which binds specifically with the protein).

The following is an example of a method which can be used to detect secretion of a protein corresponding to a marker of the invention. About 8×10^5 293T cells are
25 incubated at 37°C in wells containing growth medium (Dulbecco's modified Eagle's medium {DMEM} supplemented with 10% fetal bovine serum) under a 5% (v/v) CO₂, 95% air atmosphere to about 60-70% confluence. The cells are then transfected using a standard transfection mixture comprising 2 micrograms of DNA comprising an expression vector encoding the protein and 10 microliters of LipofectAMINE™
30 (GIBCO/BRL Catalog no. 18342-012) per well. The transfection mixture is maintained for about 5 hours, and then replaced with fresh growth medium and maintained in an air atmosphere. Each well is gently rinsed twice with DMEM which does not contain

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methionine or cysteine (DMEM-MC; ICN Catalog no. 16-424- 54). About 1 milliliter of DMEM-MC and about 50 microcuries of Trans-³⁵S™ reagent (ICN Catalog no. 51006) are added to each well. The wells are maintained under the 5% CO₂ atmosphere described above and incubated at 37°C for a selected period. Following incubation, 150
5 microliters of conditioned medium is removed and centrifuged to remove floating cells and debris. The presence of the protein in the supernatant is an indication that the protein is secreted.

Examples of ovary-associated body fluids include blood fluids (*e.g.* whole blood, blood serum, blood having platelets removed therefrom, etc.), lymph, ascitic fluids,
10 gynecological fluids (*e.g.* ovarian, fallopian, and uterine secretions, menses, vaginal douching fluids, fluids used to rinse cervical cell samples, etc.), cystic fluid, urine, and fluids collected by peritoneal rinsing (*e.g.* fluids applied and collected during laparoscopy or fluids instilled into and withdrawn from the peritoneal cavity of a human patient). In these embodiments, the level of expression of the marker can be assessed by
15 assessing the amount (*e.g.* absolute amount or concentration) of the marker in an ovary-associated body fluid obtained from a patient. The fluid can, of course, be subjected to a variety of well-known post-collection preparative and storage techniques (*e.g.* storage, freezing, ultrafiltration, concentration, evaporation, centrifugation, etc.) prior to assessing the amount of the marker in the fluid.

20 Many ovary-associated body fluids (*i.e.* usually excluding urine) can have ovarian cells, *e.g.* ovarian epithelium, therein, particularly when the ovarian cells are cancerous, and, more particularly, when the ovarian cancer is metastasizing. Cell-containing fluids which can contain ovarian cancer cells include, but are not limited to, peritoneal ascites, fluids collected by peritoneal rinsing, fluids collected by uterine
25 rinsing, uterine fluids such as uterine exudate and menses, pleural fluid, and ovarian exudates. Thus, the compositions, kits, and methods of the invention can be used to detect expression of markers corresponding to proteins having at least one portion which is displayed on the surface of cells which express it. Examples of such proteins are indicated in the Tables herein. Although not every protein having at least one cell-
30 surface portion is indicated in the Tables, it is a simple matter for the skilled artisan to determine whether the protein corresponding to any particular marker comprises a cell-surface protein. For example, immunological methods may be used to detect such

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proteins on whole cells, or well known computer-based sequence analysis methods (*e.g.* the SIGNALP program; Nielsen *et al.*, 1997, *Protein Engineering* 10:1-6) may be used to predict the presence of at least one extracellular domain (*i.e.* including both secreted proteins and proteins having at least one cell-surface domain). Expression of a marker
5 corresponding to a protein having at least one portion which is displayed on the surface of a cell which expresses it may be detected without necessarily lysing the cell (*e.g.* using a labeled antibody which binds specifically with a cell-surface domain of the protein).

Expression of a marker of the invention may be assessed by any of a wide
10 variety of well known methods for detecting expression of a transcribed molecule or protein. Non-limiting examples of such methods include immunological methods for detection of secreted, cell-surface, cytoplasmic, or nuclear proteins, protein purification methods, protein function or activity assays, nucleic acid hybridization methods, nucleic acid reverse transcription methods, and nucleic acid amplification methods.

15 In a preferred embodiment, expression of a marker is assessed using an antibody (*e.g.* a radio-labeled, chromophore-labeled, fluorophore-labeled, or enzyme-labeled antibody), an antibody derivative (*e.g.* an antibody conjugated with a substrate or with the protein or ligand of a protein-ligand pair {*e.g.* biotin-streptavidin}), or an antibody fragment (*e.g.* a single-chain antibody, an isolated antibody hypervariable domain, etc.)
20 which binds specifically with a protein corresponding to the marker, such as the protein encoded by the open reading frame corresponding to the marker or such a protein which has undergone all or a portion of its normal post-translational modification.

In another preferred embodiment, expression of a marker is assessed by preparing mRNA/cDNA (*i.e.* a transcribed polynucleotide) from cells in a patient
25 sample, and by hybridizing the mRNA/cDNA with a reference polynucleotide which is a complement of a polynucleotide comprising the marker, and fragments thereof. cDNA can, optionally, be amplified using any of a variety of polymerase chain reaction methods prior to hybridization with the reference polynucleotide; preferably, it is not amplified. Expression of one or more markers can likewise be detected using
30 quantitative PCR to assess the level of expression of the marker(s). Alternatively, any of the many known methods of detecting mutations or variants (*e.g.* single nucleotide

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polymorphisms, deletions, etc.) of a marker of the invention may be used to detect occurrence of a marker in a patient.

In a related embodiment, a mixture of transcribed polynucleotides obtained from the sample is contacted with a substrate having fixed thereto a polynucleotide
5 complementary to or homologous with at least a portion (*e.g.* at least 7, 10, 15, 20, 25, 30, 40, 50, 100, 500, or more nucleotide residues) of a marker of the invention. If polynucleotides complementary to or homologous with are differentially detectable on the substrate (*e.g.* detectable using different chromophores or fluorophores, or fixed to different selected positions), then the levels of expression of a plurality of markers can
10 be assessed simultaneously using a single substrate (*e.g.* a "gene chip" microarray of polynucleotides fixed at selected positions). When a method of assessing marker expression is used which involves hybridization of one nucleic acid with another, it is preferred that the hybridization be performed under stringent hybridization conditions.

Because the compositions, kits, and methods of the invention rely on detection of
15 a difference in expression levels of one or more markers of the invention, it is preferable that the level of expression of the marker is significantly greater than the minimum detection limit of the method used to assess expression in at least one of normal ovarian cells and cancerous ovarian cells.

It is understood that by routine screening of additional patient samples using one
20 or more of the markers of the invention, it will be realized that certain of the markers are over- or under-expressed in cancers of various types, including specific ovarian cancers, as well as other cancers such as breast cancer, cervical cancer, etc. For example, it will be confirmed that some of the markers of the invention are over- or under-expressed in most (*i.e.* 50% or more) or substantially all (*i.e.* 80% or more) of ovarian cancer.
25 Furthermore, it will be confirmed that certain of the markers of the invention are associated with ovarian cancer of various stages (*i.e.* stage I, II, III, and IV ovarian cancers, as well as subclassifications IA, IB, IC, IIA, IIB, IIC, IIIA, IIIB, and IIIC, using the FIGO Stage Grouping system for primary carcinoma of the ovary; 1987, *Am. J. Obstet. Gynecol.* 156:236), of various histologic subtypes (*e.g.* serous, mucinous,
30 endometrioid, and clear cell subtypes, as well as subclassifications and alternate classifications adenocarcinoma, papillary adenocarcinoma, papillary cystadenocarcinoma, surface papillary carcinoma, malignant adenofibroma,

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cystadenofibroma, adenocarcinoma, cystadenocarcinoma, adenoacanthoma, endometrioid stromal sarcoma, mesodermal (Müllerian) mixed tumor, mesonephroid tumor, malignant carcinoma, Brenner tumor, mixed epithelial tumor, and undifferentiated carcinoma, using the WHO/FIGO system for classification of malignant ovarian tumors; Scully, *Atlas of Tumor Pathology*, 3d series, Washington DC), and various grades (*i.e.* grade I {well differentiated} , grade II {moderately well differentiated}, and grade III {poorly differentiated from surrounding normal tissue}). In addition, as a greater number of patient samples are assessed for expression of the markers of the invention and the outcomes of the individual patients from whom the samples were obtained are correlated, it will also be confirmed that altered expression of certain of the markers of the invention are strongly correlated with malignant cancers and that altered expression of other markers of the invention are strongly correlated with benign tumors. The compositions, kits, and methods of the invention are thus useful for characterizing one or more of the stage, grade, histological type, and benign/malignant nature of ovarian cancer in patients. In addition, these compositions, kits, and methods can be used to detect and differentiate epithelial, stromal, and germ cell ovarian cancers.

When the compositions, kits, and methods of the invention are used for characterizing one or more of the stage, grade, histological type, and benign/malignant nature of ovarian cancer in a patient, it is preferred that the marker or panel of markers of the invention is selected such that a positive result is obtained in at least about 20%, and preferably at least about 40%, 60%, or 80%, and more preferably in substantially all patients afflicted with an ovarian cancer of the corresponding stage, grade, histological type, or benign/malignant nature. Preferably, the marker or panel of markers of the invention is selected such that a PPV of greater than about 10% is obtained for the general population (more preferably coupled with an assay specificity greater than 99.5%).

When a plurality of markers of the invention are used in the compositions, kits, and methods of the invention, the level of expression of each marker in a patient sample can be compared with the normal level of expression of each of the plurality of markers in non-cancerous samples of the same type, either in a single reaction mixture (*i.e.* using reagents, such as different fluorescent probes, for each marker) or in individual reaction mixtures corresponding to one or more of the markers. In one embodiment, a

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significantly enhanced level of expression of more than one of the plurality of markers in the sample, relative to the corresponding normal levels, is an indication that the patient is afflicted with ovarian cancer. In another embodiment, a significantly lower level of expression in the sample of each of the plurality of markers, relative to the corresponding normal levels, is an indication that the patient is afflicted with ovarian cancer. In yet another embodiment, a significantly enhanced level of expression of one or more marks and a significantly lower level of expression of one or more markers in a sample relative to the corresponding normal levels, is an indication that the patient is afflicted with ovarian cancer. When a plurality of markers is used, it is preferred that 2, 3, 4, 5, 8, 10, 12, 15, 20, 30, or 50 or more individual markers be used, wherein fewer markers are preferred.

In order to maximize the sensitivity of the compositions, kits, and methods of the invention (*i.e.* by interference attributable to cells of non-ovarian origin in a patient sample), it is preferable that the marker of the invention used therein be a marker which has a restricted tissue distribution, *e.g.*, normally not expressed in a non-epithelial tissue, and more preferably a marker which is normally not expressed in a non-ovarian tissue.

Only a small number of markers are known to be associated with ovarian cancers (*e.g.* *AKT2*, *Ki-RAS*, *ERBB2*, *c-MYC*, *RB1*, and *TP53*; Lynch, *supra*). These markers are not, of course, included among the markers of the invention, although they may be used together with one or more markers of the invention in a panel of markers, for example. It is well known that certain types of genes, such as oncogenes, tumor suppressor genes, growth factor-like genes, protease-like genes, and protein kinase-like genes are often involved with development of cancers of various types. Thus, among the markers of the invention, use of those which correspond to proteins which resemble known proteins encoded by known oncogenes and tumor suppressor genes, and those which correspond to proteins which resemble growth factors, proteases, and protein kinases are preferred.

Known oncogenes and tumor suppressor genes include, for example, *abl*, *abr*, *akt2*, *apc*, *bcl2 α* , *bcl2 β* , *bcl3*, *bcr*, *brca1*, *brca2*, *cbl*, *ccnd1*, *cdc42*, *cdk4*, *crk-II*, *csf1r/fms*, *dbl*, *dcc*, *dpc4/smad4*, *e-cad*, *e2f1/rbap*, *egfr/erb-1*, *elk1*, *elk3*, *epf*, *erg*, *ets1*, *ets2*, *fer*, *fgr/src2*, *fli1/ergb2*, *fos*, *fps/fes*, *fra1*, *fra2*, *fyn*, *hck*, *hek*, *her2/erb-2/neu*, *her3/erb-3*, *her4/erb-4*, *hras1*, *hst2*, *hstf1*, *igfbp2*, *ink4a*, *ink4b*, *int2/fgf3*, *jun*, *junb*, *jund*, *kip2*, *kit*, *kras2a*, *kras2b*, *lck*, *lyn*, *mas*, *max*, *mcc*, *mdm2*, *met*, *mlh1*, *mmp10*, *mos*,

msh2, msh3, msh6, myb, myba, mybb, myc, mycl1, mycn, nfl, nf2, nme2, nras, p53, pdgfb, phb, pim1, pms1, pms2, ptc, pten, raf1, rap1a, rbl, rel, ret, ros1, ski, src1, tall, tgfb2, tgfb3, tgfr3, thral, thrb, tiam1, timp3, tjp1, tp53, trk, vav, vhl, vil2, waf1, wnt1, wnt2, wt1, and yes1 (Hesketh, 1997, In: *The Oncogene and Tumour Suppressor Gene Facts Book*, 2nd Ed., Academic Press; Fishel *et al.*, 1994, *Science* 266:1403-1405).

Known growth factors include platelet-derived growth factor alpha, platelet-derived growth factor beta (simian sarcoma viral {v-sis} oncogene homolog), thrombopoietin (myeloproliferative leukemia virus oncogene ligand, megakaryocyte growth and development factor), erythropoietin, B cell growth factor, macrophage stimulating factor 1 (hepatocyte growth factor-like protein), hepatocyte growth factor (hepatopoietin A), insulin-like growth factor 1 (somatomedia C), hepatoma-derived growth factor, amphiregulin (schwannoma-derived growth factor), bone morphogenetic proteins 1, 2, 3, 3 beta, and 4, bone morphogenetic protein 7 (osteogenic protein 1), bone morphogenetic protein 8 (osteogenic protein 2), connective tissue growth factor, connective tissue activation peptide 3, epidermal growth factor (EGF), teratocarcinoma-derived growth factor 1, endothelin, endothelin 2, endothelin 3, stromal cell-derived factor 1, vascular endothelial growth factor (VEGF), VEGF-B, VEGF-C, placental growth factor (vascular endothelial growth factor-related protein), transforming growth factor alpha, transforming growth factor beta 1 and its precursors, transforming growth factor beta 2 and its precursors, fibroblast growth factor 1 (acidic), fibroblast growth factor 2 (basic), fibroblast growth factor 5 and its precursors, fibroblast growth factor 6 and its precursors, fibroblast growth factor 7 (keratinocyte growth factor), fibroblast growth factor 8 (androgen-induced), fibroblast growth factor 9 (glia-activating factor), pleiotrophin (heparin binding growth factor 8, neurite growth-promoting factor 1), brain-derived neurotrophic factor, and recombinant glial growth factor 2.

Known proteases include interleukin-1 beta convertase and its precursors, Mch6 and its precursors, Mch2 isoform alpha, Mch4, Cpp32 isoform alpha, Lice2 gamma cysteine protease, Ich-1S, Ich-1L, Ich-2 and its precursors, TY protease, matrix metalloproteinase 1 (interstitial collagenase), matrix metalloproteinase 2 (gelatinase A, 72kD gelatinase, 72kD type IV collagenase), matrix metalloproteinase 7 (matrilysin), matrix metalloproteinase 8 (neutrophil collagenase), matrix metalloproteinase 12 (macrophage elastase), matrix metalloproteinase 13 (collagenase 3), metalloproteinase 1,

- cysteine-rich metalloprotease (disintegrin) and its precursors, subtilisin-like protease Pc8 and its precursors, chymotrypsin, snake venom-like protease, cathepsin I, cathepsin D (lysosomal aspartyl protease), stromelysin, aminopeptidase N, plasminogen, tissue plasminogen activator, plasminogen activator inhibitor type II, and urokinase-type
- 5 plasminogen activator.

- Known protein kinases include DAP kinase, serine/threonine protein kinases NIK, PK428, Krs-2, SAK, and EMK, interferon-inducible double stranded RNA dependent protein kinase, FAST kinase, AIM1, IPL1-like midbody-associated protein kinase-1, NIMA-like protein kinase 1 (NLK1), the cyclin-dependent kinases (cdk1-10),
- 10 checkpoint kinase Chk1, Nek3 protein kinase, BMK1 beta kinase, Clk1, Clk2, Clk3, extracellular signal-regulated kinases 1, 3, and 6, cdc28 protein kinase 1, cdc28 protein kinase 2, pLK, Myt1, c-Jun N-terminal kinase 2, Cam kinase 1, the MAP kinases, insulin-stimulated protein kinase 1, beta-adrenergic receptor kinase 2, ribosomal protein S6 kinase, kinase suppressor of ras-1 (KSR1), putative serine/threonine protein kinase
- 15 Prk, Pkb kinase, cAMP-dependent protein kinase, cGMP-dependent protein kinase, type II cGMP-dependent protein kinase, protein kinases Dyrk2, Dyrk3, and Dyrk4, Rho-associated coiled-coil containing protein kinase p160ROCK, protein tyrosine kinase t-Ror1, Ste20-related kinases, cell adhesion kinase beta, protein kinase 3, stress-activated protein kinase 4, protein kinase Zpk, serine kinase hPAK65, dual specificity mitogen-
- 20 activated protein kinases 1 and 2, casein kinase I gamma 2, p21-activated protein kinase Pak1, lipid-activated protein kinase PRK2, focal adhesion kinase, dual-specificity tyrosine-phosphorylation regulated kinase, myosin light chain kinase, serine kinases SRPK2, TESK1, and VRK2, B lymphocyte serine/threonine protein kinase, stress-activated protein kinases JNK1 and JNK2, phosphorylase kinase, protein tyrosine kinase
- 25 Tec, Jak2 kinase, protein kinase Ndr, MEK kinase 3, SHB adaptor protein (a Src homology 2 protein), agammaglobulinaemia protein-tyrosine kinase (Atk), protein kinase ATR, guanylate kinase 1, thrombopoietin receptor and its precursors, DAG kinase epsilon, and kinases encoded by oncogenes or viral oncogenes such as v-fgr (Gardner-Rasheed), v-abl (Abelson murine leukemia viral oncogene homolog 1), v-arg
- 30 (Abelson murine leukemia viral oncogene homolog, Abelson-related gene), v-fes and v-fps (feline sarcoma viral oncogene and Fujinami avian sarcoma viral oncogene homologs), proto-oncogene *c-cot*, oncogene *pim-1*, and oncogene *mas1*.

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It is recognized that the compositions, kits, and methods of the invention will be of particular utility to patients having an enhanced risk of developing ovarian cancer and their medical advisors. Patients recognized as having an enhanced risk of developing ovarian cancer include, for example, patients having a familial history of ovarian cancer, 5 patients identified as having a mutant oncogene (*i.e.* at least one allele), and patients of advancing age (*i.e.* women older than about 50 or 60 years).

The level of expression of a marker in normal (*i.e.* non-cancerous) human ovarian tissue can be assessed in a variety of ways. In one embodiment, this normal level of expression is assessed by assessing the level of expression of the marker in a 10 portion of ovarian cells which appears to be non-cancerous and by comparing this normal level of expression with the level of expression in a portion of the ovarian cells which is suspected of being cancerous. For example, when laparoscopy or other medical procedure, reveals the presence of a lump on one portion of a patient's ovary, but not on another portion of the same ovary or on the other ovary, the normal level of 15 expression of a marker may be assessed using one or both of the non-affected ovary and a non-affected portion of the affected ovary, and this normal level of expression may be compared with the level of expression of the same marker in an affected portion (*i.e.* the lump) of the affected ovary. Alternately, and particularly as further information becomes available as a result of routine performance of the methods described herein, 20 population-average values for normal expression of the markers of the invention may be used. In other embodiments, the 'normal' level of expression of a marker may be determined by assessing expression of the marker in a patient sample obtained from a non-cancer-afflicted patient, from a patient sample obtained from a patient before the suspected onset of ovarian cancer in the patient, from archived patient samples, and the 25 like.

The invention includes compositions, kits, and methods for assessing the presence of ovarian cancer cells in a sample (*e.g.* an archived tissue sample or a sample obtained from a patient). These compositions, kits, and methods are substantially the same as those described above, except that, where necessary, the compositions, kits, and 30 methods are adapted for use with samples other than patient samples. For example, when the sample to be used is a parafinized, archived human tissue sample, it can be necessary to adjust the ratio of compounds in the compositions of the invention, in the

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kits of the invention, or the methods used to assess levels of marker expression in the sample. Such methods are well known in the art and within the skill of the ordinary artisan.

The invention includes a kit for assessing the presence of ovarian cancer cells
5 (e.g. in a sample such as a patient sample). The kit comprises a plurality of reagents, each of which is capable of binding specifically with a nucleic acid or polypeptide corresponding to a marker of the invention. Suitable reagents for binding with a polypeptide corresponding to a marker of the invention include antibodies, antibody derivatives, antibody fragments, and the like. Suitable reagents for binding with a
10 nucleic acid (e.g. a genomic DNA, an mRNA, a spliced mRNA, a cDNA, or the like) include complementary nucleic acids. For example, the nucleic acid reagents may include oligonucleotides (labeled or non-labeled) fixed to a substrate, labeled oligonucleotides not bound with a substrate, pairs of PCR primers, molecular beacon probes, and the like.

15 The kit of the invention may optionally comprise additional components useful for performing the methods of the invention. By way of example, the kit may comprise fluids (e.g. SSC buffer) suitable for annealing complementary nucleic acids or for binding an antibody with a protein with which it specifically binds, one or more sample compartments, an instructional material which describes performance of a method of the
20 invention, a sample of normal ovarian cells, a sample of ovarian cancer cells, and the like.

The invention also includes a method of making an isolated hybridoma which produces an antibody useful for assessing whether patient is afflicted with an ovarian cancer. In this method, a protein corresponding to a marker of the invention is isolated
25 (e.g. by purification from a cell in which it is expressed or by transcription and translation of a nucleic acid encoding the protein *in vivo* or *in vitro* using known methods). A vertebrate, preferably a mammal such as a mouse, rat, rabbit, or sheep, is immunized using the isolated protein. The vertebrate may optionally (and preferably) be immunized at least one additional time with the isolated protein, so that the vertebrate
30 exhibits a robust immune response to the protein. Splenocytes are isolated from the immunized vertebrate and fused with an immortalized cell line to form hybridomas, using any of a variety of methods well known in the art. Hybridomas formed in this

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manner are then screened using standard methods to identify one or more hybridomas which produce an antibody which specifically binds with the protein. The invention also includes hybridomas made by this method and antibodies made using such hybridomas.

- 5 The invention also includes a method of assessing the efficacy of a test compound for inhibiting ovarian cancer cells. As described above, differences in the level of expression of the markers of the invention correlate with the cancerous state of ovarian cells. Although it is recognized that changes in the levels of expression of certain of the markers of the invention likely result from the cancerous state of ovarian
- 10 cells, it is likewise recognized that changes in the levels of expression of other of the markers of the invention induce, maintain, and promote the cancerous state of those cells. Thus, compounds which inhibit an ovarian cancer in a patient will cause the level of expression of one or more of the markers of the invention to change to a level nearer the normal level of expression for that marker (*i.e.* the level of expression for the marker
- 15 in non-cancerous ovarian cells).

- This method thus comprises comparing expression of a marker in a first ovarian cell sample and maintained in the presence of the test compound and expression of the marker in a second ovarian cell sample and maintained in the absence of the test compound. A significant alteration in the level of expression of a marker listed in
- 20 Tables 1-2 is an indication that the test compound inhibits ovarian cancer. The ovarian cell samples may, for example, be aliquots of a single sample of normal ovarian cells obtained from a patient, pooled samples of normal ovarian cells obtained from a patient, cells of a normal ovarian cell line, aliquots of a single sample of ovarian cancer cells obtained from a patient, pooled samples of ovarian cancer cells obtained from a patient,
- 25 cells of an ovarian cancer cell line, or the like. In one embodiment, the samples are ovarian cancer cells obtained from a patient and a plurality of compounds known to be effective for inhibiting various ovarian cancers are tested in order to identify the compound which is likely to best inhibit the ovarian cancer in the patient.

- This method may likewise be used to assess the efficacy of a therapy for
- 30 inhibiting ovarian cancer in a patient. In this method, the level of expression of one or more markers of the invention in a pair of samples (one subjected to the therapy, the other not subjected to the therapy) is assessed. As with the method of assessing the

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efficacy of test compounds, if the therapy induces a significant alteration in the level of expression of a marker listed in Tables 1-2 then the therapy is efficacious for inhibiting ovarian cancer. As above, if samples from a selected patient are used in this method, then alternative therapies can be assessed *in vitro* in order to select a therapy most likely to be efficacious for inhibiting ovarian cancer in the patient.

As described herein, ovarian cancer in patients is associated with an alteration in the level of expression of one or more markers listed in Tables 1-2. While, as discussed above, some of these changes in expression level result from occurrence of the ovarian cancer, others of these changes induce, maintain, and promote the cancerous state of ovarian cancer cells. Thus, ovarian cancer characterized by an increase in the level of expression of one or more markers listed in either or both of Tables 1-2 can be inhibited by inhibiting expression of those markers.

Expression of a marker listed in Tables 1-2 can be inhibited in a number of ways generally known in the art. For example, an antisense oligonucleotide can be provided to the ovarian cancer cells in order to inhibit transcription, translation, or both, of the marker(s). Alternately, a polynucleotide encoding an antibody, an antibody derivative, or an antibody fragment, and operably linked with an appropriate promoter/regulator region, can be provided to the cell in order to generate intracellular antibodies which will inhibit the function or activity of the protein corresponding to the marker(s). Using the methods described herein, a variety of molecules, particularly including molecules sufficiently small that they are able to cross the cell membrane, can be screened in order to identify molecules which inhibit expression of the marker(s). The compound so identified can be provided to the patient in order to inhibit expression of the marker(s) in the ovarian cancer cells of the patient.

Expression of a marker listed in Tables 1-2 can be enhanced in a number of ways generally known in the art. For example, a polynucleotide encoding the marker and operably linked with an appropriate promoter/regulator region can be provided to ovarian cancer cells of the patient in order to induce enhanced expression of the protein (and mRNA) corresponding to the marker therein. Alternatively, if the protein is capable of crossing the cell membrane, inserting itself in the cell membrane, or is normally a secreted protein, then expression of the protein can be enhanced by providing

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the protein (*e.g.* directly or by way of the bloodstream or another ovary-associated fluid) to ovarian cancer cells in the patient.

As described above, the cancerous state of human ovarian cells is correlated with changes in the levels of expression of the markers of the invention. The invention
5 includes a method for assessing the human ovarian cell carcinogenic potential of a test compound. This method comprises maintaining separate aliquots of human ovarian cells in the presence and absence of the test compound. Expression of a marker of the invention in each of the aliquots is compared. A significant alteration in the level of expression of a marker listed in Tables 1-2 in the aliquot maintained in the presence of
10 the test compound (relative to the aliquot maintained in the absence of the test compound) is an indication that the test compound possesses human ovarian cell carcinogenic potential. The relative carcinogenic potentials of various test compounds can be assessed by comparing the degree of enhancement or inhibition of the level of expression of the relevant markers, by comparing the number of markers for which the
15 level of expression is enhanced or inhibited, or by comparing both.

Various aspects of the invention are described in further detail in the following subsections.

I. Isolated Nucleic Acid Molecules

20 One aspect of the invention pertains to novel isolated nucleic acid molecules that correspond to a marker of the invention, including nucleic acids which encode a polypeptide corresponding to a marker of the invention or a portion of such a polypeptide. Isolated nucleic acids of the invention also include nucleic acid molecules sufficient for use as hybridization probes to identify nucleic acid molecules that
25 correspond to a marker of the invention, including nucleic acids which encode a polypeptide corresponding to a marker of the invention, and fragments of such nucleic acid molecules, *e.g.*, those suitable for use as PCR primers for the amplification or mutation of nucleic acid molecules. As used herein, the term "nucleic acid molecule" is intended to include DNA molecules (*e.g.*, cDNA or genomic DNA) and RNA molecules
30 (*e.g.*, mRNA) and analogs of the DNA or RNA generated using nucleotide analogs. The nucleic acid molecule can be single-stranded or double-stranded, but preferably is double-stranded DNA.

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An "isolated" nucleic acid molecule is one which is separated from other nucleic acid molecules which are present in the natural source of the nucleic acid molecule. Preferably, an "isolated" nucleic acid molecule is free of sequences (preferably protein-encoding sequences) which naturally flank the nucleic acid (*i.e.*, sequences located at the 5' and 3' ends of the nucleic acid) in the genomic DNA of the organism from which the nucleic acid is derived. For example, in various embodiments, the isolated nucleic acid molecule can contain less than about 5 kB, 4 kB, 3 kB, 2 kB, 1 kB, 0.5 kB or 0.1 kB of nucleotide sequences which naturally flank the nucleic acid molecule in genomic DNA of the cell from which the nucleic acid is derived. Moreover, an "isolated" nucleic acid molecule, such as a cDNA molecule, can be substantially free of other cellular material, or culture medium when produced by recombinant techniques, or substantially free of chemical precursors or other chemicals when chemically synthesized.

A nucleic acid molecule of the present invention can be isolated using standard molecular biology techniques and the sequence information in the database records described herein. Using all or a portion of such nucleic acid sequences, nucleic acid molecules of the invention can be isolated using standard hybridization and cloning techniques (*e.g.*, as described in Sambrook *et al.*, ed., *Molecular Cloning: A Laboratory Manual*, 2nd ed., Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1989).

A nucleic acid molecule of the invention can be amplified using cDNA, mRNA, or genomic DNA as a template and appropriate oligonucleotide primers according to standard PCR amplification techniques. The nucleic acid so amplified can be cloned into an appropriate vector and characterized by DNA sequence analysis. Furthermore, oligonucleotides corresponding to all or a portion of a nucleic acid molecule of the invention can be prepared by standard synthetic techniques, *e.g.*, using an automated DNA synthesizer.

In another preferred embodiment, an isolated nucleic acid molecule of the invention comprises a nucleic acid molecule which has a nucleotide sequence complementary to the nucleotide sequence of a nucleic acid corresponding to a marker of the invention or to the nucleotide sequence of a nucleic acid encoding a protein which corresponds to a marker of the invention. A nucleic acid molecule which is complementary to a given nucleotide sequence is one which is sufficiently

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complementary to the given nucleotide sequence that it can hybridize to the given nucleotide sequence thereby forming a stable duplex.

Moreover, a nucleic acid molecule of the invention can comprise only a portion of a nucleic acid sequence, wherein the full length nucleic acid sequence comprises a
5 marker of the invention or which encodes a polypeptide corresponding to a marker of the invention. Such nucleic acids can be used, for example, as a probe or primer. The probe/primer typically is used as one or more substantially purified oligonucleotides. The oligonucleotide typically comprises a region of nucleotide sequence that hybridizes under stringent conditions to at least about 7, preferably about 15, more preferably about
10 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, or 400 or more consecutive nucleotides of a nucleic acid of the invention.

Probes based on the sequence of a nucleic acid molecule of the invention can be used to detect transcripts or genomic sequences corresponding to one or more markers of the invention. The probe comprises a label group attached thereto, *e.g.*, a
15 radioisotope, a fluorescent compound, an enzyme, or an enzyme co-factor. Such probes can be used as part of a diagnostic test kit for identifying cells or tissues which mis-express the protein, such as by measuring levels of a nucleic acid molecule encoding the protein in a sample of cells from a subject, *e.g.*, detecting mRNA levels or determining whether a gene encoding the protein has been mutated or deleted.

20 The invention further encompasses nucleic acid molecules that differ, due to degeneracy of the genetic code, from the nucleotide sequence of nucleic acids encoding a protein which corresponds to a marker of the invention, and thus encode the same protein.

It will be appreciated by those skilled in the art that DNA sequence
25 polymorphisms that lead to changes in the amino acid sequence can exist within a population (*e.g.*, the human population). Such genetic polymorphisms can exist among individuals within a population due to natural allelic variation. An allele is one of a group of genes which occur alternatively at a given genetic locus. In addition, it will be appreciated that DNA polymorphisms that affect RNA expression levels can also exist
30 that may affect the overall expression level of that gene (*e.g.*, by affecting regulation or degradation).

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As used herein, the phrase "allelic variant" refers to a nucleotide sequence which occurs at a given locus or to a polypeptide encoded by the nucleotide sequence.

As used herein, the terms "gene" and "recombinant gene" refer to nucleic acid molecules comprising an open reading frame encoding a polypeptide corresponding to a marker of the invention. Such natural allelic variations can typically result in 1-5% variance in the nucleotide sequence of a given gene. Alternative alleles can be identified by sequencing the gene of interest in a number of different individuals. This can be readily carried out by using hybridization probes to identify the same genetic locus in a variety of individuals. Any and all such nucleotide variations and resulting amino acid polymorphisms or variations that are the result of natural allelic variation and that do not alter the functional activity are intended to be within the scope of the invention.

In another embodiment, an isolated nucleic acid molecule of the invention is at least 7, 15, 20, 25, 30, 40, 60, 80, 100, 150, 200, 250, 300, 350, 400, 450, 550, 650, 700, 800, 900, 1000, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3500, 4000, 4500, or more nucleotides in length and hybridizes under stringent conditions to a nucleic acid corresponding to a marker of the invention or to a nucleic acid encoding a protein corresponding to a marker of the invention. As used herein, the term "hybridizes under stringent conditions" is intended to describe conditions for hybridization and washing under which nucleotide sequences at least 75% (80%, 85%, preferably 90%) identical to each other typically remain hybridized to each other. Such stringent conditions are known to those skilled in the art and can be found in sections 6.3.1-6.3.6 of *Current Protocols in Molecular Biology*, John Wiley & Sons, N.Y. (1989). A preferred, non-limiting example of stringent hybridization conditions for annealing two single-stranded DNA each of which is at least about 100 bases in length and/or for annealing a single-stranded DNA and a single-stranded RNA each of which is at least about 100 bases in length, are hybridization in 6X sodium chloride/sodium citrate (SSC) at about 45°C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 50-65°C. Further preferred hybridization conditions are taught in Lockhart, *et al.*, *Nature Biotechnology*, Volume 14, 1996 August:1675-1680; Breslauer, *et al.*, *Proc. Natl. Acad. Sci. USA*, Volume 83, 1986 June: 3746-3750; Van Ness, *et al.*, *Nucleic Acids Research*, Volume 19, No. 19, 1991 September: 5143-5151; McGraw, *et al.*, *BioTechniques*,

Volume 8, No. 6 1990: 674-678; and Milner, *et al.*, Nature Biotechnology, Volume 15, 1997 June: 537-541, all expressly incorporated by reference.

In addition to naturally-occurring allelic variants of a nucleic acid molecule of the invention that can exist in the population, the skilled artisan will further appreciate that sequence changes can be introduced by mutation thereby leading to changes in the amino acid sequence of the encoded protein, without altering the biological activity of the protein encoded thereby. For example, one can make nucleotide substitutions leading to amino acid substitutions at "non-essential" amino acid residues. A "non-essential" amino acid residue is a residue that can be altered from the wild-type sequence without altering the biological activity, whereas an "essential" amino acid residue is required for biological activity. For example, amino acid residues that are not conserved or only semi-conserved among homologs of various species may be non-essential for activity and thus would be likely targets for alteration. Alternatively, amino acid residues that are conserved among the homologs of various species (*e.g.*, murine and human) may be essential for activity and thus would not be likely targets for alteration.

Accordingly, another aspect of the invention pertains to nucleic acid molecules encoding a polypeptide of the invention that contain changes in amino acid residues that are not essential for activity. Such polypeptides differ in amino acid sequence from the naturally-occurring proteins which correspond to the markers of the invention, yet retain biological activity. In one embodiment, such a protein has an amino acid sequence that is at least about 40% identical, 50%, 60%, 70%, 80%, 90%, 95%, or 98% identical to the amino acid sequence of one of the proteins which correspond to the markers of the invention.

An isolated nucleic acid molecule encoding a variant protein can be created by introducing one or more nucleotide substitutions, additions or deletions into the nucleotide sequence of nucleic acids of the invention, such that one or more amino acid residue substitutions, additions, or deletions are introduced into the encoded protein. Mutations can be introduced by standard techniques, such as site-directed mutagenesis and PCR-mediated mutagenesis. Preferably, conservative amino acid substitutions are made at one or more predicted non-essential amino acid residues. A "conservative amino acid substitution" is one in which the amino acid residue is replaced with an

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amino acid residue having a similar side chain. Families of amino acid residues having similar side chains have been defined in the art. These families include amino acids with basic side chains (*e.g.*, lysine, arginine, histidine), acidic side chains (*e.g.*, aspartic acid, glutamic acid), uncharged polar side chains (*e.g.*, glycine, asparagine, glutamine, serine, threonine, tyrosine, cysteine), non-polar side chains (*e.g.*, alanine, valine, leucine, isoleucine, proline, phenylalanine, methionine, tryptophan), beta-branched side chains (*e.g.*, threonine, valine, isoleucine) and aromatic side chains (*e.g.*, tyrosine, phenylalanine, tryptophan, histidine). Alternatively, mutations can be introduced randomly along all or part of the coding sequence, such as by saturation mutagenesis, and the resultant mutants can be screened for biological activity to identify mutants that retain activity. Following mutagenesis, the encoded protein can be expressed recombinantly and the activity of the protein can be determined.

The present invention encompasses antisense nucleic acid molecules, *i.e.*, molecules which are complementary to a sense nucleic acid of the invention, *e.g.*, complementary to the coding strand of a double-stranded cDNA molecule corresponding to a marker of the invention or complementary to an mRNA sequence corresponding to a marker of the invention. Accordingly, an antisense nucleic acid of the invention can hydrogen bond to (*i.e.* anneal with) a sense nucleic acid of the invention. The antisense nucleic acid can be complementary to an entire coding strand, or to only a portion thereof, *e.g.*, all or part of the protein coding region (or open reading frame). An antisense nucleic acid molecule can also be antisense to all or part of a non-coding region of the coding strand of a nucleotide sequence encoding a polypeptide of the invention. The non-coding regions ("5' and 3' untranslated regions") are the 5' and 3' sequences which flank the coding region and are not translated into amino acids.

An antisense oligonucleotide can be, for example, about 5, 10, 15, 20, 25, 30, 35, 40, 45, or 50 or more nucleotides in length. An antisense nucleic acid of the invention can be constructed using chemical synthesis and enzymatic ligation reactions using procedures known in the art. For example, an antisense nucleic acid (*e.g.*, an antisense oligonucleotide) can be chemically synthesized using naturally occurring nucleotides or variously modified nucleotides designed to increase the biological stability of the molecules or to increase the physical stability of the duplex formed between the antisense and sense nucleic acids, *e.g.*, phosphorothioate derivatives and acridine

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substituted nucleotides can be used. Examples of modified nucleotides which can be used to generate the antisense nucleic acid include 5-fluorouracil, 5-bromouracil, 5-chlorouracil, 5-iodouracil, hypoxanthine, xanthine, 4-acetylcytosine, 5-(carboxyhydroxymethyl) uracil, 5-carboxymethylaminomethyl-2-thiouridine, 5-carboxymethylaminomethyluracil, dihydrouracil, beta-D-galactosylqueosine, inosine, N6-isopentenyladenine, 1-methylguanine, 1-methylinosine, 2,2-dimethylguanine, 2-methyladenine, 2-methylguanine, 3-methylcytosine, 5-methylcytosine, N6-adenine, 7-methylguanine, 5-methylaminomethyluracil, 5-methoxyaminomethyl-2-thiouracil, beta-D-mannosylqueosine, 5'-methoxycarboxymethyluracil, 5-methoxyuracil, 2-methylthio-N6-isopentenyladenine, uracil-5-oxyacetic acid (v), wybutoxosine, pseudouracil, queosine, 2-thiocytosine, 5-methyl-2-thiouracil, 2-thiouracil, 4-thiouracil, 5-methyluracil, uracil-5-oxyacetic acid methylester, uracil-5-oxyacetic acid (v), 5-methyl-2-thiouracil, 3-(3-amino-3-N-2-carboxypropyl) uracil, (acp3)w, and 2,6-diaminopurine. Alternatively, the antisense nucleic acid can be produced biologically using an expression vector into which a nucleic acid has been sub-cloned in an antisense orientation (*i.e.*, RNA transcribed from the inserted nucleic acid will be of an antisense orientation to a target nucleic acid of interest, described further in the following subsection).

The antisense nucleic acid molecules of the invention are typically administered to a subject or generated *in situ* such that they hybridize with or bind to cellular mRNA and/or genomic DNA encoding a polypeptide corresponding to a selected marker of the invention to thereby inhibit expression of the marker, *e.g.*, by inhibiting transcription and/or translation. The hybridization can be by conventional nucleotide complementarity to form a stable duplex, or, for example, in the case of an antisense nucleic acid molecule which binds to DNA duplexes, through specific interactions in the major groove of the double helix. Examples of a route of administration of antisense nucleic acid molecules of the invention includes direct injection at a tissue site or infusion of the antisense nucleic acid into an ovary-associated body fluid. Alternatively, antisense nucleic acid molecules can be modified to target selected cells and then administered systemically. For example, for systemic administration, antisense molecules can be modified such that they specifically bind to receptors or antigens expressed on a selected cell surface, *e.g.*, by linking the antisense nucleic acid molecules

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to peptides or antibodies which bind to cell surface receptors or antigens. The antisense nucleic acid molecules can also be delivered to cells using the vectors described herein. To achieve sufficient intracellular concentrations of the antisense molecules, vector constructs in which the antisense nucleic acid molecule is placed under the control of a strong pol II or pol III promoter are preferred.

An antisense nucleic acid molecule of the invention can be an α -anomeric nucleic acid molecule. An α -anomeric nucleic acid molecule forms specific double-stranded hybrids with complementary RNA in which, contrary to the usual α -units, the strands run parallel to each other (Gaultier *et al.*, 1987, *Nucleic Acids Res.* 15:6625-6641). The antisense nucleic acid molecule can also comprise a 2'-O-methylribonucleotide (Inoue *et al.*, 1987, *Nucleic Acids Res.* 15:6131-6148) or a chimeric RNA-DNA analogue (Inoue *et al.*, 1987, *FEBS Lett.* 215:327-330).

The invention also encompasses ribozymes. Ribozymes are catalytic RNA molecules with ribonuclease activity which are capable of cleaving a single-stranded nucleic acid, such as an mRNA, to which they have a complementary region. Thus, ribozymes (*e.g.*, hammerhead ribozymes as described in Haselhoff and Gerlach, 1988, *Nature* 334:585-591) can be used to catalytically cleave mRNA transcripts to thereby inhibit translation of the protein encoded by the mRNA. A ribozyme having specificity for a nucleic acid molecule encoding a polypeptide corresponding to a marker of the invention can be designed based upon the nucleotide sequence of a cDNA corresponding to the marker. For example, a derivative of a *Tetrahymena* L-19 IVS RNA can be constructed in which the nucleotide sequence of the active site is complementary to the nucleotide sequence to be cleaved (see Cech *et al.* U.S. Patent No. 4,987,071; and Cech *et al.* U.S. Patent No. 5,116,742). Alternatively, an mRNA encoding a polypeptide of the invention can be used to select a catalytic RNA having a specific ribonuclease activity from a pool of RNA molecules (see, *e.g.*, Bartel and Szostak, 1993, *Science* 261:1411-1418).

The invention also encompasses nucleic acid molecules which form triple helical structures. For example, expression of a polypeptide of the invention can be inhibited by targeting nucleotide sequences complementary to the regulatory region of the gene encoding the polypeptide (*e.g.*, the promoter and/or enhancer) to form triple helical structures that prevent transcription of the gene in target cells. See generally Helene

(1991) *Anticancer Drug Des.* 6(6):569-84; Helene (1992) *Ann. N.Y. Acad. Sci.* 660:27-36; and Maher (1992) *Bioassays* 14(12):807-15.

In various embodiments, the nucleic acid molecules of the invention can be modified at the base moiety, sugar moiety or phosphate backbone to improve, *e.g.*, the stability, hybridization, or solubility of the molecule. For example, the deoxyribose phosphate backbone of the nucleic acids can be modified to generate peptide nucleic acids (see Hyrup *et al.*, 1996, *Bioorganic & Medicinal Chemistry* 4(1): 5-23). As used herein, the terms "peptide nucleic acids" or "PNAs" refer to nucleic acid mimics, *e.g.*, DNA mimics, in which the deoxyribose phosphate backbone is replaced by a pseudopeptide backbone and only the four natural nucleobases are retained. The neutral backbone of PNAs has been shown to allow for specific hybridization to DNA and RNA under conditions of low ionic strength. The synthesis of PNA oligomers can be performed using standard solid phase peptide synthesis protocols as described in Hyrup *et al.* (1996), *supra*; Perry-O'Keefe *et al.* (1996) *Proc. Natl. Acad. Sci. USA* 93:14670-675.

PNAs can be used in therapeutic and diagnostic applications. For example, PNAs can be used as antisense or antigene agents for sequence-specific modulation of gene expression by, *e.g.*, inducing transcription or translation arrest or inhibiting replication. PNAs can also be used, *e.g.*, in the analysis of single base pair mutations in a gene by, *e.g.*, PNA directed PCR clamping; as artificial restriction enzymes when used in combination with other enzymes, *e.g.*, S1 nucleases (Hyrup (1996), *supra*; or as probes or primers for DNA sequence and hybridization (Hyrup, 1996, *supra*; Perry-O'Keefe *et al.*, 1996, *Proc. Natl. Acad. Sci. USA* 93:14670-675).

In another embodiment, PNAs can be modified, *e.g.*, to enhance their stability or cellular uptake, by attaching lipophilic or other helper groups to PNA, by the formation of PNA-DNA chimeras, or by the use of liposomes or other techniques of drug delivery known in the art. For example, PNA-DNA chimeras can be generated which can combine the advantageous properties of PNA and DNA. Such chimeras allow DNA recognition enzymes, *e.g.*, RNASE H and DNA polymerases, to interact with the DNA portion while the PNA portion would provide high binding affinity and specificity. PNA-DNA chimeras can be linked using linkers of appropriate lengths selected in terms of base stacking, number of bonds between the nucleobases, and orientation (Hyrup,

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1996, *supra*). The synthesis of PNA-DNA chimeras can be performed as described in Hyrup (1996), *supra*, and Finn *et al.* (1996) *Nucleic Acids Res.* 24(17):3357-63. For example, a DNA chain can be synthesized on a solid support using standard phosphoramidite coupling chemistry and modified nucleoside analogs. Compounds
5 such as 5'-(4-methoxytrityl)amino-5'-deoxy-thymidine phosphoramidite can be used as a link between the PNA and the 5' end of DNA (Mag *et al.*, 1989, *Nucleic Acids Res.* 17:5973-88). PNA monomers are then coupled in a step-wise manner to produce a chimeric molecule with a 5' PNA segment and a 3' DNA segment (Finn *et al.*, 1996, *Nucleic Acids Res.* 24(17):3357-63). Alternatively, chimeric molecules can be
10 synthesized with a 5' DNA segment and a 3' PNA segment (Peterser *et al.*, 1975, *Bioorganic Med. Chem. Lett.* 5:1119-11124).

In other embodiments, the oligonucleotide can include other appended groups such as peptides (*e.g.*, for targeting host cell receptors *in vivo*), or agents facilitating transport across the cell membrane (see, *e.g.*, Letsinger *et al.*, 1989, *Proc. Natl. Acad. Sci. USA* 86:6553-6556; Lemaitre *et al.*, 1987, *Proc. Natl. Acad. Sci. USA* 84:648-652;
15 PCT Publication No. WO 88/09810) or the blood-brain barrier (see, *e.g.*, PCT Publication No. WO 89/10134). In addition, oligonucleotides can be modified with hybridization-triggered cleavage agents (see, *e.g.*, Krol *et al.*, 1988, *Bio/Techniques* 6:958-976) or intercalating agents (see, *e.g.*, Zon, 1988, *Pharm. Res.* 5:539-549). To
20 this end, the oligonucleotide can be conjugated to another molecule, *e.g.*, a peptide, hybridization triggered cross-linking agent, transport agent, hybridization-triggered cleavage agent, etc.

The invention also includes molecular beacon nucleic acids having at least one region which is complementary to a nucleic acid of the invention, such that the
25 molecular beacon is useful for quantitating the presence of the nucleic acid of the invention in a sample. A "molecular beacon" nucleic acid is a nucleic acid comprising a pair of complementary regions and having a fluorophore and a fluorescent quencher associated therewith. The fluorophore and quencher are associated with different portions of the nucleic acid in such an orientation that when the complementary regions
30 are annealed with one another, fluorescence of the fluorophore is quenched by the quencher. When the complementary regions of the nucleic acid are not annealed with

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one another, fluorescence of the fluorophore is quenched to a lesser degree. Molecular beacon nucleic acids are described, for example, in U.S. Patent 5,876,930.

II. Isolated Proteins and Antibodies

- 5 One aspect of the invention pertains to isolated proteins which correspond to individual markers of the invention, and biologically active portions thereof, as well as polypeptide fragments suitable for use as immunogens to raise antibodies directed against a polypeptide corresponding to a marker of the invention. In one embodiment, the native polypeptide corresponding to a marker can be isolated from cells or tissue
- 10 sources by an appropriate purification scheme using standard protein purification techniques. In another embodiment, polypeptides corresponding to a marker of the invention are produced by recombinant DNA techniques. Alternative to recombinant expression, a polypeptide corresponding to a marker of the invention can be synthesized chemically using standard peptide synthesis techniques.
- 15 An "isolated" or "purified" protein or biologically active portion thereof is substantially free of cellular material or other contaminating proteins from the cell or tissue source from which the protein is derived, or substantially free of chemical precursors or other chemicals when chemically synthesized. The language
- 20 "substantially free of cellular material" includes preparations of protein in which the protein is separated from cellular components of the cells from which it is isolated or recombinantly produced. Thus, protein that is substantially free of cellular material includes preparations of protein having less than about 30%, 20%, 10%, or 5% (by dry weight) of heterologous protein (also referred to herein as a "contaminating protein").
- 25 When the protein or biologically active portion thereof is recombinantly produced, it is also preferably substantially free of culture medium, *i.e.*, culture medium represents less than about 20%, 10%, or 5% of the volume of the protein preparation. When the protein is produced by chemical synthesis, it is preferably substantially free of chemical precursors or other chemicals, *i.e.*, it is separated from chemical precursors or other chemicals which are involved in the synthesis of the protein. Accordingly such
- 30 preparations of the protein have less than about 30%, 20%, 10%, 5% (by dry weight) of chemical precursors or compounds other than the polypeptide of interest.

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Biologically active portions of a polypeptide corresponding to a marker of the invention include polypeptides comprising amino acid sequences sufficiently identical to or derived from the amino acid sequence of the protein corresponding to the marker, which include fewer amino acids than the full length protein, and exhibit at least one
5 activity of the corresponding full-length protein. Typically, biologically active portions comprise a domain or motif with at least one activity of the corresponding protein. A biologically active portion of a protein of the invention can be a polypeptide which is, for example, 10, 25, 50, 100 or more amino acids in length. Moreover, other biologically active portions, in which other regions of the protein are deleted, can be
10 prepared by recombinant techniques and evaluated for one or more of the functional activities of the native form of a polypeptide of the invention.

Preferred polypeptides are encoded by the nucleotide sequences of Tables 1-2. Other useful proteins are substantially identical (*e.g.*, at least about 40%, preferably 50%, 60%, 70%, 80%, 90%, 95%, or 99%) to one of these sequences and retain the
15 functional activity of the protein of the corresponding naturally-occurring protein yet differ in amino acid sequence due to natural allelic variation or mutagenesis.

To determine the percent identity of two amino acid sequences or of two nucleic acids, the sequences are aligned for optimal comparison purposes (*e.g.*, gaps can be introduced in the sequence of a first amino acid or nucleic acid sequence for optimal
20 alignment with a second amino or nucleic acid sequence). The amino acid residues or nucleotides at corresponding amino acid positions or nucleotide positions are then compared. When a position in the first sequence is occupied by the same amino acid residue or nucleotide as the corresponding position in the second sequence, then the molecules are identical at that position. The percent identity between the two sequences
25 is a function of the number of identical positions shared by the sequences (*i.e.*, % identity = # of identical positions/total # of positions (*e.g.*, overlapping positions) x100). In one embodiment the two sequences are the same length.

The determination of percent identity between two sequences can be accomplished using a mathematical algorithm. A preferred, non-limiting example of a
30 mathematical algorithm utilized for the comparison of two sequences is the algorithm of Karlin and Altschul (1990) *Proc. Natl. Acad. Sci. USA* 87:2264-2268, modified as in Karlin and Altschul (1993) *Proc. Natl. Acad. Sci. USA* 90:5873-5877. Such an

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algorithm is incorporated into the NBLAST and XBLAST programs of Altschul, *et al.* (1990) *J. Mol. Biol.* 215:403-410. BLAST nucleotide searches can be performed with the NBLAST program, score = 100, wordlength = 12 to obtain nucleotide sequences homologous to a nucleic acid molecules of the invention. BLAST protein searches can be performed with the XBLAST program, score = 50, wordlength = 3 to obtain amino acid sequences homologous to a protein molecules of the invention. To obtain gapped alignments for comparison purposes, Gapped BLAST can be utilized as described in Altschul *et al.* (1997) *Nucleic Acids Res.* 25:3389-3402. Alternatively, PSI-Blast can be used to perform an iterated search which detects distant relationships between molecules. When utilizing BLAST, Gapped BLAST, and PSI-Blast programs, the default parameters of the respective programs (*e.g.*, XBLAST and NBLAST) can be used. See <http://www.ncbi.nlm.nih.gov>. Another preferred, non-limiting example of a mathematical algorithm utilized for the comparison of sequences is the algorithm of Myers and Miller, (1988) *CABIOS* 4:11-17. Such an algorithm is incorporated into the ALIGN program (version 2.0) which is part of the GCG sequence alignment software package. When utilizing the ALIGN program for comparing amino acid sequences, a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4 can be used. Yet another useful algorithm for identifying regions of local sequence similarity and alignment is the FASTA algorithm as described in Pearson and Lipman (1988) *Proc. Natl. Acad. Sci. USA* 85:2444-2448. When using the FASTA algorithm for comparing nucleotide or amino acid sequences, a PAM120 weight residue table can, for example, be used with a *k*-tuple value of 2.

The percent identity between two sequences can be determined using techniques similar to those described above, with or without allowing gaps. In calculating percent identity, only exact matches are counted.

The invention also provides chimeric or fusion proteins corresponding to a marker of the invention. As used herein, a "chimeric protein" or "fusion protein" comprises all or part (preferably a biologically active part) of a polypeptide corresponding to a marker of the invention operably linked to a heterologous polypeptide (*i.e.*, a polypeptide other than the polypeptide corresponding to the marker). Within the fusion protein, the term "operably linked" is intended to indicate that the polypeptide of the invention and the heterologous polypeptide are fused in-frame to each

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other. The heterologous polypeptide can be fused to the amino-terminus or the carboxyl-terminus of the polypeptide of the invention.

One useful fusion protein is a GST fusion protein in which a polypeptide corresponding to a marker of the invention is fused to the carboxyl terminus of GST sequences. Such fusion proteins can facilitate the purification of a recombinant polypeptide of the invention.

In another embodiment, the fusion protein contains a heterologous signal sequence at its amino terminus. For example, the native signal sequence of a polypeptide corresponding to a marker of the invention can be removed and replaced with a signal sequence from another protein. For example, the gp67 secretory sequence of the baculovirus envelope protein can be used as a heterologous signal sequence (Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, NY, 1992). Other examples of eukaryotic heterologous signal sequences include the secretory sequences of melittin and human placental alkaline phosphatase (Stratagene; La Jolla, California). In yet another example, useful prokaryotic heterologous signal sequences include the phoA secretory signal (Sambrook *et al.*, *supra*) and the protein A secretory signal (Pharmacia Biotech; Piscataway, New Jersey).

In yet another embodiment, the fusion protein is an immunoglobulin fusion protein in which all or part of a polypeptide corresponding to a marker of the invention is fused to sequences derived from a member of the immunoglobulin protein family. The immunoglobulin fusion proteins of the invention can be incorporated into pharmaceutical compositions and administered to a subject to inhibit an interaction between a ligand (soluble or membrane-bound) and a protein on the surface of a cell (receptor), to thereby suppress signal transduction *in vivo*. The immunoglobulin fusion protein can be used to affect the bioavailability of a cognate ligand of a polypeptide of the invention. Inhibition of ligand/receptor interaction can be useful therapeutically, both for treating proliferative and differentiative disorders and for modulating (*e.g.* promoting or inhibiting) cell survival. Moreover, the immunoglobulin fusion proteins of the invention can be used as immunogens to produce antibodies directed against a polypeptide of the invention in a subject, to purify ligands and in screening assays to identify molecules which inhibit the interaction of receptors with ligands.

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Chimeric and fusion proteins of the invention can be produced by standard recombinant DNA techniques. In another embodiment, the fusion gene can be synthesized by conventional techniques including automated DNA synthesizers. Alternatively, PCR amplification of gene fragments can be carried out using anchor
5 primers which give rise to complementary overhangs between two consecutive gene fragments which can subsequently be annealed and re-amplified to generate a chimeric gene sequence (see, *e.g.*, Ausubel *et al.*, *supra*). Moreover, many expression vectors are commercially available that already encode a fusion moiety (*e.g.*, a GST polypeptide). A nucleic acid encoding a polypeptide of the invention can be cloned into such an
10 expression vector such that the fusion moiety is linked in-frame to the polypeptide of the invention.

A signal sequence can be used to facilitate secretion and isolation of the secreted protein or other proteins of interest. Signal sequences are typically characterized by a core of hydrophobic amino acids which are generally cleaved from the mature protein
15 during secretion in one or more cleavage events. Such signal peptides contain processing sites that allow cleavage of the signal sequence from the mature proteins as they pass through the secretory pathway. Thus, the invention pertains to the described polypeptides having a signal sequence, as well as to polypeptides from which the signal sequence has been proteolytically cleaved (*i.e.*, the cleavage products). In one
20 embodiment, a nucleic acid sequence encoding a signal sequence can be operably linked in an expression vector to a protein of interest, such as a protein which is ordinarily not secreted or is otherwise difficult to isolate. The signal sequence directs secretion of the protein, such as from a eukaryotic host into which the expression vector is transformed, and the signal sequence is subsequently or concurrently cleaved. The protein can then
25 be readily purified from the extracellular medium by art recognized methods. Alternatively, the signal sequence can be linked to the protein of interest using a sequence which facilitates purification, such as with a GST domain.

The present invention also pertains to variants of the polypeptides corresponding to individual markers of the invention. Such variants have an altered amino acid
30 sequence which can function as either agonists (mimetics) or as antagonists. Variants can be generated by mutagenesis, *e.g.*, discrete point mutation or truncation. An agonist can retain substantially the same, or a subset, of the biological activities of the naturally

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occurring form of the protein. An antagonist of a protein can inhibit one or more of the activities of the naturally occurring form of the protein by, for example, competitively binding to a downstream or upstream member of a cellular signaling cascade which includes the protein of interest. Thus, specific biological effects can be elicited by treatment with a variant of limited function. Treatment of a subject with a variant having a subset of the biological activities of the naturally occurring form of the protein can have fewer side effects in a subject relative to treatment with the naturally occurring form of the protein.

Variants of a protein of the invention which function as either agonists (mimetics) or as antagonists can be identified by screening combinatorial libraries of mutants, *e.g.*, truncation mutants, of the protein of the invention for agonist or antagonist activity. In one embodiment, a variegated library of variants is generated by combinatorial mutagenesis at the nucleic acid level and is encoded by a variegated gene library. A variegated library of variants can be produced by, for example, enzymatically ligating a mixture of synthetic oligonucleotides into gene sequences such that a degenerate set of potential protein sequences is expressible as individual polypeptides, or alternatively, as a set of larger fusion proteins (*e.g.*, for phage display). There are a variety of methods which can be used to produce libraries of potential variants of the polypeptides of the invention from a degenerate oligonucleotide sequence. Methods for synthesizing degenerate oligonucleotides are known in the art (see, *e.g.*, Narang, 1983, *Tetrahedron* 39:3; Itakura *et al.*, 1984, *Annu. Rev. Biochem.* 53:323; Itakura *et al.*, 1984, *Science* 198:1056; Ike *et al.*, 1983 *Nucleic Acid Res.* 11:477).

In addition, libraries of fragments of the coding sequence of a polypeptide corresponding to a marker of the invention can be used to generate a variegated population of polypeptides for screening and subsequent selection of variants. For example, a library of coding sequence fragments can be generated by treating a double stranded PCR fragment of the coding sequence of interest with a nuclease under conditions wherein nicking occurs only about once per molecule, denaturing the double stranded DNA, renaturing the DNA to form double stranded DNA which can include sense/antisense pairs from different nicked products, removing single stranded portions from reformed duplexes by treatment with S1 nuclease, and ligating the resulting fragment library into an expression vector. By this method, an expression library can be

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derived which encodes amino terminal and internal fragments of various sizes of the protein of interest.

Several techniques are known in the art for screening gene products of combinatorial libraries made by point mutations or truncation, and for screening cDNA
5 libraries for gene products having a selected property. The most widely used techniques, which are amenable to high through-put analysis, for screening large gene libraries typically include cloning the gene library into replicable expression vectors, transforming appropriate cells with the resulting library of vectors, and expressing the combinatorial genes under conditions in which detection of a desired activity facilitates
10 isolation of the vector encoding the gene whose product was detected. Recursive ensemble mutagenesis (REM), a technique which enhances the frequency of functional mutants in the libraries, can be used in combination with the screening assays to identify variants of a protein of the invention (Arkin and Yourvan, 1992, *Proc. Natl. Acad. Sci. USA* 89:7811-7815; Delgrave *et al.*, 1993, *Protein Engineering* 6(3):327- 331).

15 An isolated polypeptide corresponding to a marker of the invention, or a fragment thereof, can be used as an immunogen to generate antibodies using standard techniques for polyclonal and monoclonal antibody preparation. The full-length polypeptide or protein can be used or, alternatively, the invention provides antigenic peptide fragments for use as immunogens. The antigenic peptide of a protein of the
20 invention comprises at least 8 (preferably 10, 15, 20, or 30 or more) amino acid residues of the amino acid sequence of one of the polypeptides of the invention, and encompasses an epitope of the protein such that an antibody raised against the peptide forms a specific immune complex with a marker of the invention to which the protein corresponds. Preferred epitopes encompassed by the antigenic peptide are regions that are located on
25 the surface of the protein, e.g., hydrophilic regions. Hydrophobicity sequence analysis, hydrophilicity sequence analysis, or similar analyses can be used to identify hydrophilic regions.

An immunogen typically is used to prepare antibodies by immunizing a suitable (i.e. immunocompetent) subject such as a rabbit, goat, mouse, or other mammal or
30 vertebrate. An appropriate immunogenic preparation can contain, for example, recombinantly-expressed or chemically-synthesized polypeptide. The preparation can

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further include an adjuvant, such as Freund's complete or incomplete adjuvant, or a similar immunostimulatory agent.

Accordingly, another aspect of the invention pertains to antibodies directed against a polypeptide of the invention. The terms "antibody" and "antibody substance" as used interchangeably herein refer to immunoglobulin molecules and immunologically active portions of immunoglobulin molecules, *i.e.*, molecules that contain an antigen binding site which specifically binds an antigen, such as a polypeptide of the invention, *e.g.*, an epitope of a polypeptide of the invention. A molecule which specifically binds to a given polypeptide of the invention is a molecule which binds the polypeptide, but does not substantially bind other molecules in a sample, *e.g.*, a biological sample, which naturally contains the polypeptide. Examples of immunologically active portions of immunoglobulin molecules include F(ab) and F(ab')₂ fragments which can be generated by treating the antibody with an enzyme such as pepsin. The invention provides polyclonal and monoclonal antibodies. The term "monoclonal antibody" or "monoclonal antibody composition", as used herein, refers to a population of antibody molecules that contain only one species of an antigen binding site capable of immunoreacting with a particular epitope.

Polyclonal antibodies can be prepared as described above by immunizing a suitable subject with a polypeptide of the invention as an immunogen. Preferred polyclonal antibody compositions are ones that have been selected for antibodies directed against a polypeptide or polypeptides of the invention. Particularly preferred polyclonal antibody preparations are ones that contain only antibodies directed against a polypeptide or polypeptides of the invention. Particularly preferred immunogen compositions are those that contain no other human proteins such as, for example, immunogen compositions made using a non-human host cell for recombinant expression of a polypeptide of the invention. In such a manner, the only human epitope or epitopes recognized by the resulting antibody compositions raised against this immunogen will be present as part of a polypeptide or polypeptides of the invention.

The antibody titer in the immunized subject can be monitored over time by standard techniques, such as with an enzyme linked immunosorbent assay (ELISA) using immobilized polypeptide. If desired, the antibody molecules can be harvested or isolated from the subject (*e.g.*, from the blood or serum of the subject) and further

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purified by well-known techniques, such as protein A chromatography to obtain the IgG fraction. Alternatively, antibodies specific for a protein or polypeptide of the invention can be selected or (*e.g.*, partially purified) or purified by, *e.g.*, affinity chromatography. For example, a recombinantly expressed and purified (or partially purified) protein of the invention is produced as described herein, and covalently or non-covalently coupled to a solid support such as, for example, a chromatography column. The column can then be used to affinity purify antibodies specific for the proteins of the invention from a sample containing antibodies directed against a large number of different epitopes, thereby generating a substantially purified antibody composition, *i.e.*, one that is substantially free of contaminating antibodies. By a substantially purified antibody composition is meant, in this context, that the antibody sample contains at most only 30% (by dry weight) of contaminating antibodies directed against epitopes other than those of the desired protein or polypeptide of the invention, and preferably at most 20%, yet more preferably at most 10%, and most preferably at most 5% (by dry weight) of the sample is contaminating antibodies. A purified antibody composition means that at least 99% of the antibodies in the composition are directed against the desired protein or polypeptide of the invention.

At an appropriate time after immunization, *e.g.*, when the specific antibody titers are highest, antibody-producing cells can be obtained from the subject and used to prepare monoclonal antibodies by standard techniques, such as the hybridoma technique originally described by Kohler and Milstein (1975) *Nature* 256:495-497, the human B cell hybridoma technique (see Kozbor *et al.*, 1983, *Immunol. Today* 4:72), the EBV-hybridoma technique (see Cole *et al.*, pp. 77-96 In *Monoclonal Antibodies and Cancer Therapy*, Alan R. Liss, Inc., 1985) or trioma techniques. The technology for producing hybridomas is well known (see generally *Current Protocols in Immunology*, Coligan *et al.* ed., John Wiley & Sons, New York, 1994). Hybridoma cells producing a monoclonal antibody of the invention are detected by screening the hybridoma culture supernatants for antibodies that bind the polypeptide of interest, *e.g.*, using a standard ELISA assay.

Alternative to preparing monoclonal antibody-secreting hybridomas, a monoclonal antibody directed against a polypeptide of the invention can be identified and isolated by screening a recombinant combinatorial immunoglobulin library (*e.g.*, an

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antibody phage display library) with the polypeptide of interest. Kits for generating and screening phage display libraries are commercially available (e.g., the Pharmacia *Recombinant Phage Antibody System*, Catalog No. 27-9400-01; and the Stratagene *SurfZAP Phage Display Kit*, Catalog No. 240612). Additionally, examples of methods and reagents particularly amenable for use in generating and screening antibody display library can be found in, for example, U.S. Patent No. 5,223,409; PCT Publication No. WO 92/18619; PCT Publication No. WO 91/17271; PCT Publication No. WO 92/20791; PCT Publication No. WO 92/15679; PCT Publication No. WO 93/01288; PCT Publication No. WO 92/01047; PCT Publication No. WO 92/09690; PCT Publication No. WO 90/02809; Fuchs *et al.* (1991) *Bio/Technology* 9:1370-1372; Hay *et al.* (1992) *Hum. Antibod. Hybridomas* 3:81-85; Huse *et al.* (1989) *Science* 246:1275-1281; Griffiths *et al.* (1993) *EMBO J.* 12:725-734.

Additionally, recombinant antibodies, such as chimeric and humanized monoclonal antibodies, comprising both human and non-human portions, which can be made using standard recombinant DNA techniques, are within the scope of the invention. A chimeric antibody is a molecule in which different portions are derived from different animal species, such as those having a variable region derived from a murine mAb and a human immunoglobulin constant region. (See, e.g., Cabilly *et al.*, U.S. Patent No. 4,816,567; and Boss *et al.*, U.S. Patent No. 4,816,397, which are incorporated herein by reference in their entirety.) Humanized antibodies are antibody molecules from non-human species having one or more complementarily determining regions (CDRs) from the non-human species and a framework region from a human immunoglobulin molecule. (See, e.g., Queen, U.S. Patent No. 5,585,089, which is incorporated herein by reference in its entirety.) Such chimeric and humanized monoclonal antibodies can be produced by recombinant DNA techniques known in the art, for example using methods described in PCT Publication No. WO 87/02671; European Patent Application 184,187; European Patent Application 171,496; European Patent Application 173,494; PCT Publication No. WO 86/01533; U.S. Patent No. 4,816,567; European Patent Application 125,023; Better *et al.* (1988) *Science* 240:1041-1043; Liu *et al.* (1987) *Proc. Natl. Acad. Sci. USA* 84:3439-3443; Liu *et al.* (1987) *J. Immunol.* 139:3521-3526; Sun *et al.* (1987) *Proc. Natl. Acad. Sci. USA* 84:214-218; Nishimura *et al.* (1987) *Cancer Res.* 47:999-1005; Wood *et al.* (1985) *Nature* 314:446-

449; and Shaw *et al.* (1988) *J. Natl. Cancer Inst.* 80:1553-1559); Morrison (1985) *Science* 229:1202-1207; Oi *et al.* (1986) *Bio/Techniques* 4:214; U.S. Patent 5,225,539; Jones *et al.* (1986) *Nature* 321:552-525; Verhoeyan *et al.* (1988) *Science* 239:1534; and Beidler *et al.* (1988) *J. Immunol.* 141:4053-4060.

5 Antibodies of the invention may be used as therapeutic agents in treating cancers. In a preferred embodiment, completely human antibodies of the invention are used for therapeutic treatment of human cancer patients, particularly those having an ovarian cancer. Such antibodies can be produced, for example, using transgenic mice which are incapable of expressing endogenous immunoglobulin heavy and light chains
10 genes, but which can express human heavy and light chain genes. The transgenic mice are immunized in the normal fashion with a selected antigen, *e.g.*, all or a portion of a polypeptide corresponding to a marker of the invention. Monoclonal antibodies directed against the antigen can be obtained using conventional hybridoma technology. The human immunoglobulin transgenes harbored by the transgenic mice rearrange during B
15 cell differentiation, and subsequently undergo class switching and somatic mutation. Thus, using such a technique, it is possible to produce therapeutically useful IgG, IgA and IgE antibodies. For an overview of this technology for producing human antibodies, see Lonberg and Huszar (1995) *Int. Rev. Immunol.* 13:65-93). For a detailed discussion of this technology for producing human antibodies and human monoclonal antibodies
20 and protocols for producing such antibodies, see, *e.g.*, U.S. Patent 5,625,126; U.S. Patent 5,633,425; U.S. Patent 5,569,825; U.S. Patent 5,661,016; and U.S. Patent 5,545,806. In addition, companies such as Abgenix, Inc. (Freemont, CA), can be engaged to provide human antibodies directed against a selected antigen using technology similar to that described above.

25 Completely human antibodies which recognize a selected epitope can be generated using a technique referred to as "guided selection." In this approach a selected non-human monoclonal antibody, *e.g.*, a murine antibody, is used to guide the selection of a completely human antibody recognizing the same epitope (Jespers *et al.*, 1994, *Bio/technology* 12:899-903).

30 An antibody directed against a polypeptide corresponding to a marker of the invention (*e.g.*, a monoclonal antibody) can be used to isolate the polypeptide by standard techniques, such as affinity chromatography or immunoprecipitation.

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- Moreover, such an antibody can be used to detect the marker (*e.g.*, in a cellular lysate or cell supernatant) in order to evaluate the level and pattern of expression of the marker. The antibodies can also be used diagnostically to monitor protein levels in tissues or body fluids (*e.g.* in an ovary-associated body fluid) as part of a clinical testing
- 5 procedure, *e.g.*, to, for example, determine the efficacy of a given treatment regimen. Detection can be facilitated by coupling the antibody to a detectable substance. Examples of detectable substances include various enzymes, prosthetic groups, fluorescent materials, luminescent materials, bioluminescent materials, and radioactive materials. Examples of suitable enzymes include horseradish peroxidase, alkaline
- 10 phosphatase, β -galactosidase, or acetylcholinesterase; examples of suitable prosthetic group complexes include streptavidin/biotin and avidin/biotin; examples of suitable fluorescent materials include umbelliferone, fluorescein, fluorescein isothiocyanate, rhodamine, dichlorotriazinylamine fluorescein, dansyl chloride or phycoerythrin; an example of a luminescent material includes luminol; examples of bioluminescent
- 15 materials include luciferase, luciferin, and aequorin, and examples of suitable radioactive material include ^{125}I , ^{131}I , ^{35}S or ^3H .

- Further, an antibody (or fragment thereof) can be conjugated to a therapeutic moiety such as a cytotoxin, a therapeutic agent or a radioactive metal ion. A cytotoxin or cytotoxic agent includes any agent that is detrimental to cells. Examples include
- 20 taxol, cytochalasin B, gramicidin D, ethidium bromide, emetine, mitomycin, etoposide, tenoposide, vincristine, vinblastine, colchicin, doxorubicin, daunorubicin, dihydroxy anthracin dione, mitoxantrone, mithramycin, actinomycin D, 1-dehydrotestosterone, glucocorticoids, procaine, tetracaine, lidocaine, propranolol, and puromycin and analogs or homologs thereof. Therapeutic agents include, but are not limited to, antimetabolites
- 25 (*e.g.*, methotrexate, 6-mercaptopurine, 6-thioguanine, cytarabine, 5-fluorouracil decarbazine), alkylating agents (*e.g.*, mechlorethamine, thioepa chlorambucil, melphalan, carmustine (BSNU) and lomustine (CCNU), cyclophosphamide, busulfan, dibromomannitol, streptozotocin, mitomycin C, and cis-dichlorodiamine platinum (II) (DDP) cisplatin), anthracyclines (*e.g.*, daunorubicin (formerly daunomycin) and
- 30 doxorubicin), antibiotics (*e.g.*, dactinomycin (formerly actinomycin), bleomycin, mithramycin, and anthramycin (AMC)), and anti-mitotic agents (*e.g.*, vincristine and vinblastine).

The conjugates of the invention can be used for modifying a given biological response, the drug moiety is not to be construed as limited to classical chemical therapeutic agents. For example, the drug moiety may be a protein or polypeptide possessing a desired biological activity. Such proteins may include, for example, a toxin
5 such as abrin, ricin A, pseudomonas exotoxin, or diphtheria toxin; a protein such as tumor necrosis factor, .alpha.-interferon, .beta.-interferon, nerve growth factor, platelet derived growth factor, tissue plasminogen activator; or, biological response modifiers such as, for example, lymphokines, interleukin-1 ("IL-1"), interleukin-2 ("IL-2"), interleukin-6 ("IL-6"), granulocyte macrophage colony stimulating factor ("GM-CSF"),
10 granulocyte colony stimulating factor ("G-CSF"), or other growth factors.

Techniques for conjugating such therapeutic moiety to antibodies are well known, see, *e.g.*, Arnon et al., "Monoclonal Antibodies For Immunotargeting Of Drugs In Cancer Therapy", in *Monoclonal Antibodies And Cancer Therapy*, Reisfeld et al. (eds.), pp. 243-56 (Alan R. Liss, Inc. 1985); Hellstrom et al., "Antibodies For Drug
15 Delivery", in *Controlled Drug Delivery* (2nd Ed.), Robinson et al. (eds.), pp. 623-53 (Marcel Dekker, Inc. 1987); Thorpe, "Antibody Carriers Of Cytotoxic Agents In Cancer Therapy: A Review", in *Monoclonal Antibodies '84: Biological And Clinical Applications*, Pinchera et al. (eds.), pp. 475-506 (1985); "Analysis, Results, And Future Prospective Of The Therapeutic Use Of Radiolabeled Antibody In Cancer Therapy", in
20 *Monoclonal Antibodies For Cancer Detection And Therapy*, Baldwin et al. (eds.), pp. 303-16 (Academic Press 1985), and Thorpe et al., "The Preparation And Cytotoxic Properties Of Antibody-Toxin Conjugates", *Immunol. Rev.*, 62:119-58 (1982).

Alternatively, an antibody can be conjugated to a second antibody to form an antibody heteroconjugate as described by Segal in U.S. Patent No. 4,676,980.

25 Accordingly, in one aspect, the invention provides substantially purified antibodies or fragments thereof, and non-human antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of the amino acid sequences of the present invention, an amino acid sequence encoded by the cDNA of the present invention, a
30 fragment of at least 15 amino acid residues of an amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the

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ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. In various embodiments, the substantially purified antibodies of the invention, or fragments thereof, can be human, non-human, chimeric and/or humanized antibodies.

In another aspect, the invention provides non-human antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of: the amino acid sequence of the present invention, an amino acid sequence encoded by the cDNA of the present invention, a fragment of at least 15 amino acid residues of the amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. Such non-human antibodies can be goat, mouse, sheep, horse, chicken, rabbit, or rat antibodies. Alternatively, the non-human antibodies of the invention can be chimeric and/or humanized antibodies. In addition, the non-human antibodies of the invention can be polyclonal antibodies or monoclonal antibodies.

In still a further aspect, the invention provides monoclonal antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of the amino acid sequences of the present invention, an amino acid sequence encoded by the cDNA of the present invention, a fragment of at least 15 amino acid residues of an amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to an amino acid sequence of the present invention (wherein the percent

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identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention,
5 or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. The monoclonal antibodies can be human, humanized, chimeric and/or non-human antibodies.

The substantially purified antibodies or fragments thereof may specifically bind to a signal peptide, a secreted sequence, an extracellular domain, a transmembrane or a
10 cytoplasmic domain or cytoplasmic membrane of a polypeptide of the invention. In a particularly preferred embodiment, the substantially purified antibodies or fragments thereof, the non-human antibodies or fragments thereof, and/or the monoclonal antibodies or fragments thereof, of the invention specifically bind to a secreted sequence or an extracellular domain of the amino acid sequences of the present invention.

15 Any of the antibodies of the invention can be conjugated to a therapeutic moiety or to a detectable substance. Non-limiting examples of detectable substances that can be conjugated to the antibodies of the invention are an enzyme, a prosthetic group, a fluorescent material, a luminescent material, a bioluminescent material, and a radioactive material.

20 The invention also provides a kit containing an antibody of the invention conjugated to a detectable substance, and instructions for use. Still another aspect of the invention is a pharmaceutical composition comprising an antibody of the invention and a pharmaceutically acceptable carrier. In preferred embodiments, the pharmaceutical composition contains an antibody of the invention, a therapeutic moiety, and a
25 pharmaceutically acceptable carrier.

Still another aspect of the invention is a method of making an antibody that specifically recognizes a polypeptide of the present invention, the method comprising immunizing a mammal with a polypeptide. The polypeptide used as an immungen comprises an amino acid sequence selected from the group consisting of the amino acid
30 sequence of the present invention, an amino acid sequence encoded by the cDNA of the nucleic acid molecules of the present invention, a fragment of at least 15 amino acid residues of the amino acid sequence of the present invention, an amino acid sequence

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which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C.

After immunization, a sample is collected from the mammal that contains an antibody that specifically recognizes the polypeptide. Preferably, the polypeptide is recombinantly produced using a non-human host cell. Optionally, the antibodies can be further purified from the sample using techniques well known to those of skill in the art. The method can further comprise producing a monoclonal antibody-producing cell from the cells of the mammal. Optionally, antibodies are collected from the antibody-producing cell.

15

III. Recombinant Expression Vectors and Host Cells

Another aspect of the invention pertains to vectors, preferably expression vectors, containing a nucleic acid encoding a polypeptide corresponding to a marker of the invention (or a portion of such a polypeptide). As used herein, the term "vector" refers to a nucleic acid molecule capable of transporting another nucleic acid to which it has been linked. One type of vector is a "plasmid", which refers to a circular double stranded DNA loop into which additional DNA segments can be ligated. Another type of vector is a viral vector, wherein additional DNA segments can be ligated into the viral genome. Certain vectors are capable of autonomous replication in a host cell into which they are introduced (*e.g.*, bacterial vectors having a bacterial origin of replication and episomal mammalian vectors). Other vectors (*e.g.*, non-episomal mammalian vectors) are integrated into the genome of a host cell upon introduction into the host cell, and thereby are replicated along with the host genome. Moreover, certain vectors, namely expression vectors, are capable of directing the expression of genes to which they are operably linked. In general, expression vectors of utility in recombinant DNA techniques are often in the form of plasmids (vectors). However, the invention is intended to include such other forms of expression vectors, such as viral vectors (*e.g.*,

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replication defective retroviruses, adenoviruses and adeno-associated viruses), which serve equivalent functions.

The recombinant expression vectors of the invention comprise a nucleic acid of the invention in a form suitable for expression of the nucleic acid in a host cell. This
5 means that the recombinant expression vectors include one or more regulatory sequences, selected on the basis of the host cells to be used for expression, which is operably linked to the nucleic acid sequence to be expressed. Within a recombinant expression vector, "operably linked" is intended to mean that the nucleotide sequence of interest is linked to the regulatory sequence(s) in a manner which allows for expression
10 of the nucleotide sequence (*e.g.*, in an *in vitro* transcription/translation system or in a host cell when the vector is introduced into the host cell). The term "regulatory sequence" is intended to include promoters, enhancers and other expression control elements (*e.g.*, polyadenylation signals). Such regulatory sequences are described, for example, in Goeddel, *Methods in Enzymology: Gene Expression Technology* vol.185,
15 Academic Press, San Diego, CA (1991). Regulatory sequences include those which direct constitutive expression of a nucleotide sequence in many types of host cell and those which direct expression of the nucleotide sequence only in certain host cells (*e.g.*, tissue-specific regulatory sequences). It will be appreciated by those skilled in the art that the design of the expression vector can depend on such factors as the choice of the
20 host cell to be transformed, the level of expression of protein desired, and the like. The expression vectors of the invention can be introduced into host cells to thereby produce proteins or peptides, including fusion proteins or peptides, encoded by nucleic acids as described herein.

The recombinant expression vectors of the invention can be designed for
25 expression of a polypeptide corresponding to a marker of the invention in prokaryotic (*e.g.*, *E. coli*) or eukaryotic cells (*e.g.*, insect cells {using baculovirus expression vectors}, yeast cells or mammalian cells). Suitable host cells are discussed further in Goeddel, *supra*. Alternatively, the recombinant expression vector can be transcribed and translated *in vitro*, for example using T7 promoter regulatory sequences and T7
30 polymerase.

Expression of proteins in prokaryotes is most often carried out in *E. coli* with vectors containing constitutive or inducible promoters directing the expression of either fusion or non-fusion proteins. Fusion vectors add a number of amino acids to a protein encoded therein, usually to the amino terminus of the recombinant protein. Such fusion
5 vectors typically serve three purposes: 1) to increase expression of recombinant protein; 2) to increase the solubility of the recombinant protein; and 3) to aid in the purification of the recombinant protein by acting as a ligand in affinity purification. Often, in fusion expression vectors, a proteolytic cleavage site is introduced at the junction of the fusion moiety and the recombinant protein to enable separation of the recombinant protein
10 from the fusion moiety subsequent to purification of the fusion protein. Such enzymes, and their cognate recognition sequences, include Factor Xa, thrombin and enterokinase. Typical fusion expression vectors include pGEX (Pharmacia Biotech Inc; Smith and Johnson, 1988, *Gene* 67:31-40), pMAL (New England Biolabs, Beverly, MA) and pRIT5 (Pharmacia, Piscataway, NJ) which fuse glutathione S-transferase (GST),
15 maltose E binding protein, or protein A, respectively, to the target recombinant protein.

Examples of suitable inducible non-fusion *E. coli* expression vectors include pTrc (Amann *et al.*, 1988, *Gene* 69:301-315) and pET 11d (Studier *et al.*, p. 60-89, In
20 *Gene Expression Technology: Methods in Enzymology* vol.185, Academic Press, San Diego, CA, 1991). Target gene expression from the pTrc vector relies on host RNA polymerase transcription from a hybrid trp-lac fusion promoter. Target gene expression from the pET 11d vector relies on transcription from a T7 gn10-lac fusion promoter mediated by a co-expressed viral RNA polymerase (T7 gn1). This viral polymerase is supplied by host strains BL21(DE3) or HMS174(DE3) from a resident prophage harboring a T7 gn1 gene under the transcriptional control of the lacUV 5 promoter.

25 One strategy to maximize recombinant protein expression in *E. coli* is to express the protein in a host bacteria with an impaired capacity to proteolytically cleave the recombinant protein (Gottesman, p. 119-128, In *Gene Expression Technology: Methods in Enzymology* vol. 185, Academic Press, San Diego, CA, 1990. Another strategy is to alter the nucleic acid sequence of the nucleic acid to be inserted into an expression
30 vector so that the individual codons for each amino acid are those preferentially utilized in *E. coli* (Wada *et al.*, 1992, *Nucleic Acids Res.* 20:2111-2118). Such alteration of

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nucleic acid sequences of the invention can be carried out by standard DNA synthesis techniques.

In another embodiment, the expression vector is a yeast expression vector. Examples of vectors for expression in yeast *S. cerevisiae* include pYepSec1 (Baldari *et al.*, 1987, *EMBO J.* 6:229-234), pMFa (Kurjan and Herskowitz, 1982, *Cell* 30:933-943), pJRY88 (Schultz *et al.*, 1987, *Gene* 54:113-123), pYES2 (Invitrogen Corporation, San Diego, CA), and pPicZ (Invitrogen Corp, San Diego, CA).

Alternatively, the expression vector is a baculovirus expression vector. Baculovirus vectors available for expression of proteins in cultured insect cells (*e.g.*, Sf 9 cells) include the pAc series (Smith *et al.*, 1983, *Mol. Cell Biol.* 3:2156-2165) and the pVL series (Lucklow and Summers, 1989, *Virology* 170:31-39).

In yet another embodiment, a nucleic acid of the invention is expressed in mammalian cells using a mammalian expression vector. Examples of mammalian expression vectors include pCDM8 (Seed, 1987, *Nature* 329:840) and pMT2PC (Kaufman *et al.*, 1987, *EMBO J.* 6:187-195). When used in mammalian cells, the expression vector's control functions are often provided by viral regulatory elements. For example, commonly used promoters are derived from polyoma, Adenovirus 2, cytomegalovirus and Simian Virus 40. For other suitable expression systems for both prokaryotic and eukaryotic cells see chapters 16 and 17 of Sambrook *et al.*, *supra*.

In another embodiment, the recombinant mammalian expression vector is capable of directing expression of the nucleic acid preferentially in a particular cell type (*e.g.*, tissue-specific regulatory elements are used to express the nucleic acid). Tissue-specific regulatory elements are known in the art. Non-limiting examples of suitable tissue-specific promoters include the albumin promoter (liver-specific; Pinkert *et al.*, 1987, *Genes Dev.* 1:268-277), lymphoid-specific promoters (Calame and Eaton, 1988, *Adv. Immunol.* 43:235-275), in particular promoters of T cell receptors (Winoto and Baltimore, 1989, *EMBO J.* 8:729-733) and immunoglobulins (Banerji *et al.*, 1983, *Cell* 33:729-740; Queen and Baltimore, 1983, *Cell* 33:741-748), neuron-specific promoters (*e.g.*, the neurofilament promoter; Byrne and Ruddell, 1989, *Proc. Natl. Acad. Sci. USA* 86:5473-5477), pancreas-specific promoters (Edlund *et al.*, 1985, *Science* 230:912-916), and mammary gland-specific promoters (*e.g.*, milk whey promoter; U.S. Patent No. 4,873,316 and European Application Publication No. 264,166). Developmentally-

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regulated promoters are also encompassed, for example the murine hox promoters (Kessel and Gruss, 1990, *Science* 249:374-379) and the α -fetoprotein promoter (Camper and Tilghman, 1989, *Genes Dev.* 3:537-546).

The invention further provides a recombinant expression vector comprising a
5 DNA molecule of the invention cloned into the expression vector in an antisense orientation. That is, the DNA molecule is operably linked to a regulatory sequence in a manner which allows for expression (by transcription of the DNA molecule) of an RNA molecule which is antisense to the mRNA encoding a polypeptide of the invention. Regulatory sequences operably linked to a nucleic acid cloned in the antisense
10 orientation can be chosen which direct the continuous expression of the antisense RNA molecule in a variety of cell types, for instance viral promoters and/or enhancers, or regulatory sequences can be chosen which direct constitutive, tissue-specific or cell type specific expression of antisense RNA. The antisense expression vector can be in the form of a recombinant plasmid, phagemid, or attenuated virus in which antisense nucleic
15 acids are produced under the control of a high efficiency regulatory region, the activity of which can be determined by the cell type into which the vector is introduced. For a discussion of the regulation of gene expression using antisense genes see Weintraub *et al.*, 1986, *Trends in Genetics*, Vol. 1(1).

Another aspect of the invention pertains to host cells into which a recombinant
20 expression vector of the invention has been introduced. The terms "host cell" and "recombinant host cell" are used interchangeably herein. It is understood that such terms refer not only to the particular subject cell but to the progeny or potential progeny of such a cell. Because certain modifications may occur in succeeding generations due to either mutation or environmental influences, such progeny may not, in fact, be
25 identical to the parent cell, but are still included within the scope of the term as used herein.

A host cell can be any prokaryotic (*e.g.*, *E. coli*) or eukaryotic cell (*e.g.*, insect cells, yeast or mammalian cells).

Vector DNA can be introduced into prokaryotic or eukaryotic cells via
30 conventional transformation or transfection techniques. As used herein, the terms "transformation" and "transfection" are intended to refer to a variety of art-recognized techniques for introducing foreign nucleic acid into a host cell, including calcium

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phosphate or calcium chloride co-precipitation, DEAE-dextran-mediated transfection, lipofection, or electroporation. Suitable methods for transforming or transfecting host cells can be found in Sambrook, *et al.* (*supra*), and other laboratory manuals.

For stable transfection of mammalian cells, it is known that, depending upon the expression vector and transfection technique used, only a small fraction of cells may integrate the foreign DNA into their genome. In order to identify and select these integrants, a gene that encodes a selectable marker (*e.g.*, for resistance to antibiotics) is generally introduced into the host cells along with the gene of interest. Preferred selectable markers include those which confer resistance to drugs, such as G418, hygromycin and methotrexate. Cells stably transfected with the introduced nucleic acid can be identified by drug selection (*e.g.*, cells that have incorporated the selectable marker gene will survive, while the other cells die).

A host cell of the invention, such as a prokaryotic or eukaryotic host cell in culture, can be used to produce a polypeptide corresponding to a marker of the invention. Accordingly, the invention further provides methods for producing a polypeptide corresponding to a marker of the invention using the host cells of the invention. In one embodiment, the method comprises culturing the host cell of invention (into which a recombinant expression vector encoding a polypeptide of the invention has been introduced) in a suitable medium such that the marker is produced. In another embodiment, the method further comprises isolating the marker polypeptide from the medium or the host cell.

The host cells of the invention can also be used to produce nonhuman transgenic animals. For example, in one embodiment, a host cell of the invention is a fertilized oocyte or an embryonic stem cell into which a sequences encoding a polypeptide corresponding to a marker of the invention have been introduced. Such host cells can then be used to create non-human transgenic animals in which exogenous sequences encoding a marker protein of the invention have been introduced into their genome or homologous recombinant animals in which endogenous gene(s) encoding a polypeptide corresponding to a marker of the invention sequences have been altered. Such animals are useful for studying the function and/or activity of the polypeptide corresponding to the marker and for identifying and/or evaluating modulators of polypeptide activity. As used herein, a "transgenic animal" is a non-human animal, preferably a mammal, more

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preferably a rodent such as a rat or mouse, in which one or more of the cells of the animal includes a transgene. Other examples of transgenic animals include non-human primates, sheep, dogs, cows, goats, chickens, amphibians, etc. A transgene is exogenous DNA which is integrated into the genome of a cell from which a transgenic animal
5 develops and which remains in the genome of the mature animal, thereby directing the expression of an encoded gene product in one or more cell types or tissues of the transgenic animal. As used herein, an "homologous recombinant animal" is a non-human animal, preferably a mammal, more preferably a mouse, in which an endogenous gene has been altered by homologous recombination between the endogenous gene and
10 an exogenous DNA molecule introduced into a cell of the animal, *e.g.*, an embryonic cell of the animal, prior to development of the animal.

A transgenic animal of the invention can be created by introducing a nucleic acid encoding a polypeptide corresponding to a marker of the invention into the male pronuclei of a fertilized oocyte, *e.g.*, by microinjection, retroviral infection, and allowing
15 the oocyte to develop in a pseudopregnant female foster animal. Intronic sequences and polyadenylation signals can also be included in the transgene to increase the efficiency of expression of the transgene. A tissue-specific regulatory sequence(s) can be operably linked to the transgene to direct expression of the polypeptide of the invention to particular cells. Methods for generating transgenic animals via embryo manipulation
20 and microinjection, particularly animals such as mice, have become conventional in the art and are described, for example, in U.S. Patent Nos. 4,736,866 and 4,870,009, U.S. Patent No. 4,873,191 and in Hogan, *Manipulating the Mouse Embryo*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y., 1986. Similar methods are used for production of other transgenic animals. A transgenic founder animal can be identified
25 based upon the presence of the transgene in its genome and/or expression of mRNA encoding the transgene in tissues or cells of the animals. A transgenic founder animal can then be used to breed additional animals carrying the transgene. Moreover, transgenic animals carrying the transgene can further be bred to other transgenic animals carrying other transgenes.

30 To create an homologous recombinant animal, a vector is prepared which contains at least a portion of a gene encoding a polypeptide corresponding to a marker of the invention into which a deletion, addition or substitution has been introduced to

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thereby alter, *e.g.*, functionally disrupt, the gene. In a preferred embodiment, the vector is designed such that, upon homologous recombination, the endogenous gene is functionally disrupted (*i.e.*, no longer encodes a functional protein; also referred to as a "knock out" vector). Alternatively, the vector can be designed such that, upon

5 homologous recombination, the endogenous gene is mutated or otherwise altered but still encodes functional protein (*e.g.*, the upstream regulatory region can be altered to thereby alter the expression of the endogenous protein). In the homologous recombination vector, the altered portion of the gene is flanked at its 5' and 3' ends by additional nucleic acid of the gene to allow for homologous recombination to occur

10 between the exogenous gene carried by the vector and an endogenous gene in an embryonic stem cell. The additional flanking nucleic acid sequences are of sufficient length for successful homologous recombination with the endogenous gene. Typically, several kilobases of flanking DNA (both at the 5' and 3' ends) are included in the vector (see, *e.g.*, Thomas and Capecchi, 1987, *Cell* 51:503 for a description of homologous

15 recombination vectors). The vector is introduced into an embryonic stem cell line (*e.g.*, by electroporation) and cells in which the introduced gene has homologously recombined with the endogenous gene are selected (see, *e.g.*, Li *et al.*, 1992, *Cell* 69:915). The selected cells are then injected into a blastocyst of an animal (*e.g.*, a mouse) to form aggregation chimeras (see, *e.g.*, Bradley, *Teratocarcinomas and*

20 *Embryonic Stem Cells: A Practical Approach*, Robertson, Ed., IRL, Oxford, 1987, pp. 113-152). A chimeric embryo can then be implanted into a suitable pseudopregnant female foster animal and the embryo brought to term. Progeny harboring the homologously recombined DNA in their germ cells can be used to breed animals in which all cells of the animal contain the homologously recombined DNA by germline

25 transmission of the transgene. Methods for constructing homologous recombination vectors and homologous recombinant animals are described further in Bradley (1991). *Current Opinion in Bio/Technology* 2:823-829 and in PCT Publication NOS. WO 90/11354, WO 91/01140, WO 92/0968, and WO 93/04169.

In another embodiment, transgenic non-human animals can be produced which

30 contain selected systems which allow for regulated expression of the transgene. One example of such a system is the *cre/loxP* recombinase system of bacteriophage P1. For a description of the *cre/loxP* recombinase system, see, *e.g.*, Lakso *et al.* (1992) *Proc.*

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Natl. Acad. Sci. USA 89:6232-6236. Another example of a recombinase system is the FLP recombinase system of *Saccharomyces cerevisiae* (O'Gorman *et al.*, 1991, *Science* 251:1351-1355). If a *cre/loxP* recombinase system is used to regulate expression of the transgene, animals containing transgenes encoding both the *Cre* recombinase and a
5 selected protein are required. Such animals can be provided through the construction of "double" transgenic animals, *e.g.*, by mating two transgenic animals, one containing a transgene encoding a selected protein and the other containing a transgene encoding a recombinase.

Clones of the non-human transgenic animals described herein can also be
10 produced according to the methods described in Wilmut *et al.* (1997) *Nature* 385:810-813 and PCT Publication NOS. WO 97/07668 and WO 97/07669.

IV. Pharmaceutical Compositions

The nucleic acid molecules, polypeptides, and antibodies (also referred to herein
15 as "active compounds") corresponding to a marker of the invention can be incorporated into pharmaceutical compositions suitable for administration. Such compositions typically comprise the nucleic acid molecule, protein, or antibody and a pharmaceutically acceptable carrier. As used herein the language "pharmaceutically acceptable carrier" is intended to include any and all solvents, dispersion media,
20 coatings, antibacterial and antifungal agents, isotonic and absorption delaying agents, and the like, compatible with pharmaceutical administration. The use of such media and agents for pharmaceutically active substances is well known in the art. Except insofar as any conventional media or agent is incompatible with the active compound, use thereof in the compositions is contemplated. Supplementary active compounds can also be
25 incorporated into the compositions.

The invention includes methods for preparing pharmaceutical compositions for modulating the expression or activity of a polypeptide or nucleic acid corresponding to a marker of the invention. Such methods comprise formulating a pharmaceutically acceptable carrier with an agent which modulates expression or activity of a polypeptide
30 or nucleic acid corresponding to a marker of the invention. Such compositions can further include additional active agents. Thus, the invention further includes methods for preparing a pharmaceutical composition by formulating a pharmaceutically

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acceptable carrier with an agent which modulates expression or activity of a polypeptide or nucleic acid corresponding to a marker of the invention and one or more additional active compounds.

The invention also provides methods (also referred to herein as "screening assays") for identifying modulators, *i.e.*, candidate or test compounds or agents (*e.g.*, peptides, peptidomimetics, peptoids, small molecules or other drugs) which (a) bind to the marker, or (b) have a modulatory (*e.g.*, stimulatory or inhibitory) effect on the activity of the marker or, more specifically, (c) have a modulatory effect on the interactions of the marker with one or more of its natural substrates (*e.g.*, peptide, protein, hormone, co-factor, or nucleic acid), or (d) have a modulatory effect on the expression of the marker. Such assays typically comprise a reaction between the marker and one or more assay components. The other components may be either the test compound itself, or a combination of test compound and a natural binding partner of the marker.

The test compounds of the present invention may be obtained from any available source, including systematic libraries of natural and/or synthetic compounds. Test compounds may also be obtained by any of the numerous approaches in combinatorial library methods known in the art, including: biological libraries; peptoid libraries (libraries of molecules having the functionalities of peptides, but with a novel, non-peptide backbone which are resistant to enzymatic degradation but which nevertheless remain bioactive; see, *e.g.*, Zuckermann *et al.*, 1994, *J. Med. Chem.* 37:2678-85); spatially addressable parallel solid phase or solution phase libraries; synthetic library methods requiring deconvolution; the 'one-bead one-compound' library method; and synthetic library methods using affinity chromatography selection. The biological library and peptoid library approaches are limited to peptide libraries, while the other four approaches are applicable to peptide, non-peptide oligomer or small molecule libraries of compounds (Lam, 1997, *Anticancer Drug Des.* 12:145).

Examples of methods for the synthesis of molecular libraries can be found in the art, for example in: DeWitt *et al.* (1993) *Proc. Natl. Acad. Sci. U.S.A.* 90:6909; Erb *et al.* (1994) *Proc. Natl. Acad. Sci. USA* 91:11422; Zuckermann *et al.* (1994). *J. Med. Chem.* 37:2678; Cho *et al.* (1993) *Science* 261:1303; Carrell *et al.* (1994) *Angew. Chem.*

Int. Ed. Engl. 33:2059; Carell *et al.* (1994) *Angew. Chem. Int. Ed. Engl.* 33:2061; and in Gallop *et al.* (1994) *J. Med. Chem.* 37:1233.

Libraries of compounds may be presented in solution (*e.g.*, Houghten, 1992, *Biotechniques* 13:412-421), or on beads (Lam, 1991, *Nature* 354:82-84), chips (Fodor, 5 1993, *Nature* 364:555-556), bacteria and/or spores, (Ladner, USP 5,223,409), plasmids (Cull *et al.*, 1992, *Proc Natl Acad Sci USA* 89:1865-1869) or on phage (Scott and Smith, 1990, *Science* 249:386-390; Devlin, 1990, *Science* 249:404-406; Cwirla *et al.*, 1990, *Proc. Natl. Acad. Sci.* 87:6378-6382; Felici, 1991, *J. Mol. Biol.* 222:301-310; Ladner, *supra.*).

10 In one embodiment, the invention provides assays for screening candidate or test compounds which are substrates of a marker or biologically active portion thereof. In another embodiment, the invention provides assays for screening candidate or test compounds which bind to a marker or biologically active portion thereof. Determining the ability of the test compound to directly bind to a marker can be accomplished, for 15 example, by coupling the compound with a radioisotope or enzymatic label such that binding of the compound to the marker can be determined by detecting the labeled marker compound in a complex. For example, compounds (*e.g.*, marker substrates) can be labeled with ¹²⁵I, ³⁵S, ¹⁴C, or ³H, either directly or indirectly, and the radioisotope detected by direct counting of radioemission or by scintillation counting. Alternatively, 20 assay components can be enzymatically labeled with, for example, horseradish peroxidase, alkaline phosphatase, or luciferase, and the enzymatic label detected by determination of conversion of an appropriate substrate to product.

In another embodiment, the invention provides assays for screening candidate or test compounds which modulate the activity of a marker or a biologically active portion 25 thereof. In all likelihood, the marker can, *in vivo*, interact with one or more molecules, such as but not limited to, peptides, proteins, hormones, cofactors and nucleic acids. For the purposes of this discussion, such cellular and extracellular molecules are referred to herein as "binding partners" or marker "substrate".

One necessary embodiment of the invention in order to facilitate such screening 30 is the use of the marker to identify its natural *in vivo* binding partners. There are many ways to accomplish this which are known to one skilled in the art. One example is the use of the marker protein as "bait protein" in a two-hybrid assay or three-hybrid assay

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(see, e.g., U.S. Patent No. 5,283,317; Zervos *et al*, 1993, *Cell* 72:223-232; Madura *et al*, 1993, *J. Biol. Chem.* 268:12046-12054; Bartel *et al*, 1993, *Biotechniques* 14:920-924; Iwabuchi *et al*, 1993 *Oncogene* 8:1693-1696; Brent WO94/10300) in order to identify other proteins which bind to or interact with the marker (binding partners) and,

- 5 therefore, are possibly involved in the natural function of the marker. Such marker binding partners are also likely to be involved in the propagation of signals by the marker or downstream elements of a marker-mediated signaling pathway. Alternatively, such marker binding partners may also be found to be inhibitors of the marker.

- The two-hybrid system is based on the modular nature of most transcription
- 10 factors, which consist of separable DNA-binding and activation domains. Briefly, the assay utilizes two different DNA constructs. In one construct, the gene that encodes a marker protein fused to a gene encoding the DNA binding domain of a known transcription factor (e.g., GAL-4). In the other construct, a DNA sequence, from a library of DNA sequences, that encodes an unidentified protein ("prey" or "sample") is
- 15 fused to a gene that codes for the activation domain of the known transcription factor. If the "bait" and the "prey" proteins are able to interact, *in vivo*, forming a marker-dependent complex, the DNA-binding and activation domains of the transcription factor are brought into close proximity. This proximity allows transcription of a reporter gene (e.g., LacZ) which is operably linked to a transcriptional regulatory site responsive to
- 20 the transcription factor. Expression of the reporter gene can be readily detected and cell colonies containing the functional transcription factor can be isolated and used to obtain the cloned gene which encodes the protein which interacts with the marker protein.

- In a further embodiment, assays may be devised through the use of the invention for the purpose of identifying compounds which modulate (e.g., affect either positively
- 25 or negatively) interactions between a marker and its substrates and/or binding partners. Such compounds can include, but are not limited to, molecules such as antibodies, peptides, hormones, oligonucleotides, nucleic acids, and analogs thereof. Such compounds may also be obtained from any available source, including systematic libraries of natural and/or synthetic compounds. The preferred assay components for use
- 30 in this embodiment is an ovarian cancer marker identified herein, the known binding partner and/or substrate of same, and the test compound. Test compounds can be supplied from any source.

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The basic principle of the assay systems used to identify compounds that interfere with the interaction between the marker and its binding partner involves preparing a reaction mixture containing the marker and its binding partner under conditions and for a time sufficient to allow the two products to interact and bind, thus forming a complex. In order to test an agent for inhibitory activity, the reaction mixture is prepared in the presence and absence of the test compound. The test compound can be initially included in the reaction mixture, or can be added at a time subsequent to the addition of the marker and its binding partner. Control reaction mixtures are incubated without the test compound or with a placebo. The formation of any complexes between the marker and its binding partner is then detected. The formation of a complex in the control reaction, but less or no such formation in the reaction mixture containing the test compound, indicates that the compound interferes with the interaction of the marker and its binding partner. Conversely, the formation of more complex in the presence of compound than in the control reaction indicates that the compound may enhance interaction of the marker and its binding partner.

The assay for compounds that interfere with the interaction of the marker with its binding partner may be conducted in a heterogeneous or homogeneous format. Heterogeneous assays involve anchoring either the marker or its binding partner onto a solid phase and detecting complexes anchored to the solid phase at the end of the reaction. In homogeneous assays, the entire reaction is carried out in a liquid phase. In either approach, the order of addition of reactants can be varied to obtain different information about the compounds being tested. For example, test compounds that interfere with the interaction between the markers and the binding partners (*e.g.*, by competition) can be identified by conducting the reaction in the presence of the test substance, *i.e.*, by adding the test substance to the reaction mixture prior to or simultaneously with the marker and its interactive binding partner. Alternatively, test compounds that disrupt preformed complexes, *e.g.*, compounds with higher binding constants that displace one of the components from the complex, can be tested by adding the test compound to the reaction mixture after complexes have been formed. The various formats are briefly described below.

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In a heterogeneous assay system, either the marker or its binding partner is anchored onto a solid surface or matrix, while the other corresponding non-anchored component may be labeled, either directly or indirectly. In practice, microtitre plates are often utilized for this approach. The anchored species can be immobilized by a number of methods, either non-covalent or covalent, that are typically well known to one who practices the art. Non-covalent attachment can often be accomplished simply by coating the solid surface with a solution of the marker or its binding partner and drying. Alternatively, an immobilized antibody specific for the assay component to be anchored can be used for this purpose. Such surfaces can often be prepared in advance and stored.

10 In related embodiments, a fusion protein can be provided which adds a domain that allows one or both of the assay components to be anchored to a matrix. For example, glutathione-S-transferase/marker fusion proteins or glutathione-S-transferase/binding partner can be adsorbed onto glutathione sepharose beads (Sigma Chemical, St. Louis, MO) or glutathione derivatized microtiter plates, which are then
15 combined with the test compound or the test compound and either the non-adsorbed marker or its binding partner, and the mixture incubated under conditions conducive to complex formation (*e.g.*, physiological conditions). Following incubation, the beads or microtiter plate wells are washed to remove any unbound assay components, the immobilized complex assessed either directly or indirectly, for example, as described
20 above. Alternatively, the complexes can be dissociated from the matrix, and the level of marker binding or activity determined using standard techniques.

Other techniques for immobilizing proteins on matrices can also be used in the screening assays of the invention. For example, either a marker or a marker binding partner can be immobilized utilizing conjugation of biotin and streptavidin. Biotinylated
25 marker protein or target molecules can be prepared from biotin-NHS (N-hydroxy-succinimide) using techniques known in the art (*e.g.*, biotinylation kit, Pierce Chemicals, Rockford, IL), and immobilized in the wells of streptavidin-coated 96 well plates (Pierce Chemical). In certain embodiments, the protein-immobilized surfaces can be prepared in advance and stored.

30 In order to conduct the assay, the corresponding partner of the immobilized assay component is exposed to the coated surface with or without the test compound. After the reaction is complete, unreacted assay components are removed (*e.g.*, by washing)

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and any complexes formed will remain immobilized on the solid surface. The detection of complexes anchored on the solid surface can be accomplished in a number of ways. Where the non-immobilized component is pre-labeled, the detection of label immobilized on the surface indicates that complexes were formed. Where the non-immobilized component is not pre-labeled, an indirect label can be used to detect complexes anchored on the surface; *e.g.*, using a labeled antibody specific for the initially non-immobilized species (the antibody, in turn, can be directly labeled or indirectly labeled with, *e.g.*, a labeled anti-Ig antibody). Depending upon the order of addition of reaction components, test compounds which modulate (inhibit or enhance) complex formation or which disrupt preformed complexes can be detected.

In an alternate embodiment of the invention, a homogeneous assay may be used. This is typically a reaction, analogous to those mentioned above, which is conducted in a liquid phase in the presence or absence of the test compound. The formed complexes are then separated from unreacted components, and the amount of complex formed is determined. As mentioned for heterogeneous assay systems, the order of addition of reactants to the liquid phase can yield information about which test compounds modulate (inhibit or enhance) complex formation and which disrupt preformed complexes.

In such a homogeneous assay, the reaction products may be separated from unreacted assay components by any of a number of standard techniques, including but not limited to: differential centrifugation, chromatography, electrophoresis and immunoprecipitation. In differential centrifugation, complexes of molecules may be separated from uncomplexed molecules through a series of centrifugal steps, due to the different sedimentation equilibria of complexes based on their different sizes and densities (see, for example, Rivas, G., and Minton, A.P., *Trends Biochem Sci* 1993 Aug;18(8):284-7). Standard chromatographic techniques may also be utilized to separate complexed molecules from uncomplexed ones. For example, gel filtration chromatography separates molecules based on size, and through the utilization of an appropriate gel filtration resin in a column format, for example, the relatively larger complex may be separated from the relatively smaller uncomplexed components. Similarly, the relatively different charge properties of the complex as compared to the uncomplexed molecules may be exploited to differentially separate the complex from

the remaining individual reactants, for example through the use of ion-exchange chromatography resins. Such resins and chromatographic techniques are well known to one skilled in the art (see, *e.g.*, Heegaard, 1998, *J Mol. Recognit.* 11:141-148; Hage and Tweed, 1997, *J. Chromatogr. B. Biomed. Sci. Appl.*, 699:499-525). Gel electrophoresis
5 may also be employed to separate complexed molecules from unbound species (see, *e.g.*, Ausubel *et al* (eds.), In: Current Protocols in Molecular Biology, J. Wiley & Sons, New York. 1999). In this technique, protein or nucleic acid complexes are separated based on size or charge, for example. In order to maintain the binding interaction during the electrophoretic process, nondenaturing gels in the absence of reducing agent are
10 typically preferred, but conditions appropriate to the particular interactants will be well known to one skilled in the art. Immunoprecipitation is another common technique utilized for the isolation of a protein-protein complex from solution (see, *e.g.*, Ausubel *et al* (eds.), In: Current Protocols in Molecular Biology, J. Wiley & Sons, New York. 1999). In this technique, all proteins binding to an antibody specific to one of the
15 binding molecules are precipitated from solution by conjugating the antibody to a polymer bead that may be readily collected by centrifugation. The bound assay components are released from the beads (through a specific proteolysis event or other technique well known in the art which will not disturb the protein-protein interaction in the complex), and a second immunoprecipitation step is performed, this time utilizing
20 antibodies specific for the correspondingly different interacting assay component. In this manner, only formed complexes should remain attached to the beads. Variations in complex formation in both the presence and the absence of a test compound can be compared, thus offering information about the ability of the compound to modulate interactions between the marker and its binding partner.

25 Also within the scope of the present invention are methods for direct detection of interactions between the marker and its natural binding partner and/or a test compound in a homogeneous or heterogeneous assay system without further sample manipulation. For example, the technique of fluorescence energy transfer may be utilized (see, *e.g.*, Lakowicz *et al*, U.S. Patent No. 5,631,169; Stavrianopoulos *et al*, U.S. Patent No.
30 4,868,103). Generally, this technique involves the addition of a fluorophore label on a first 'donor' molecule (*e.g.*, marker or test compound) such that its emitted fluorescent energy will be absorbed by a fluorescent label on a second, 'acceptor' molecule (*e.g.*,

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marker or test compound), which in turn is able to fluoresce due to the absorbed energy. Alternately, the 'donor' protein molecule may simply utilize the natural fluorescent energy of tryptophan residues. Labels are chosen that emit different wavelengths of light, such that the 'acceptor' molecule label may be differentiated from that of the

5 'donor'. Since the efficiency of energy transfer between the labels is related to the distance separating the molecules, spatial relationships between the molecules can be assessed. In a situation in which binding occurs between the molecules, the fluorescent emission of the 'acceptor' molecule label in the assay should be maximal. An FET binding event can be conveniently measured through standard fluorometric detection

10 means well known in the art (e.g., using a fluorimeter). A test substance which either enhances or hinders participation of one of the species in the preformed complex will result in the generation of a signal variant to that of background. In this way, test substances that modulate interactions between a marker and its binding partner can be identified in controlled assays.

15 In another embodiment, modulators of marker expression are identified in a method wherein a cell is contacted with a candidate compound and the expression of mRNA or protein, corresponding to a marker in the cell, is determined. The level of expression of mRNA or protein in the presence of the candidate compound is compared to the level of expression of mRNA or protein in the absence of the candidate

20 compound. The candidate compound can then be identified as a modulator of marker expression based on this comparison. For example, when expression of marker mRNA or protein is greater (statistically significantly greater) in the presence of the candidate compound than in its absence, the candidate compound is identified as a stimulator of marker mRNA or protein expression. Conversely, when expression of marker mRNA

25 or protein is less (statistically significantly less) in the presence of the candidate compound than in its absence, the candidate compound is identified as an inhibitor of marker mRNA or protein expression. The level of marker mRNA or protein expression in the cells can be determined by methods described herein for detecting marker mRNA or protein.

30 In another aspect, the invention pertains to a combination of two or more of the assays described herein. For example, a modulating agent can be identified using a cell-based or a cell free assay, and the ability of the agent to modulate the activity of a

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marker protein can be further confirmed *in vivo*, *e.g.*, in a whole animal model for cellular transformation and/or tumorigenesis.

This invention further pertains to novel agents identified by the above-described screening assays. Accordingly, it is within the scope of this invention to further use an agent identified as described herein in an appropriate animal model. For example, an agent identified as described herein (*e.g.*, an marker modulating agent, an antisense marker nucleic acid molecule, an marker-specific antibody, or an marker-binding partner) can be used in an animal model to determine the efficacy, toxicity, or side effects of treatment with such an agent. Alternatively, an agent identified as described herein can be used in an animal model to determine the mechanism of action of such an agent. Furthermore, this invention pertains to uses of novel agents identified by the above-described screening assays for treatments as described herein.

It is understood that appropriate doses of small molecule agents and protein or polypeptide agents depends upon a number of factors within the knowledge of the ordinarily skilled physician, veterinarian, or researcher. The dose(s) of these agents will vary, for example, depending upon the identity, size, and condition of the subject or sample being treated, further depending upon the route by which the composition is to be administered, if applicable, and the effect which the practitioner desires the agent to have upon the nucleic acid or polypeptide of the invention. Exemplary doses of a small molecule include milligram or microgram amounts per kilogram of subject or sample weight (*e.g.* about 1 microgram per kilogram to about 500 milligrams per kilogram, about 100 micrograms per kilogram to about 5 milligrams per kilogram, or about 1 microgram per kilogram to about 50 micrograms per kilogram). Exemplary doses of a protein or polypeptide include gram, milligram or microgram amounts per kilogram of subject or sample weight (*e.g.* about 1 microgram per kilogram to about 5 grams per kilogram, about 100 micrograms per kilogram to about 500 milligrams per kilogram, or about 1 milligram per kilogram to about 50 milligrams per kilogram). It is furthermore understood that appropriate doses of one of these agents depend upon the potency of the agent with respect to the expression or activity to be modulated. Such appropriate doses can be determined using the assays described herein. When one or more of these agents is to be administered to an animal (*e.g.* a human) in order to modulate expression or activity of a polypeptide or nucleic acid of the invention, a physician, veterinarian, or

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researcher can, for example, prescribe a relatively low dose at first, subsequently increasing the dose until an appropriate response is obtained. In addition, it is understood that the specific dose level for any particular animal subject will depend upon a variety of factors including the activity of the specific agent employed, the age, body weight, general health, gender, and diet of the subject, the time of administration, the route of administration, the rate of excretion, any drug combination, and the degree of expression or activity to be modulated.

A pharmaceutical composition of the invention is formulated to be compatible with its intended route of administration. Examples of routes of administration include parenteral, *e.g.*, intravenous, intradermal, subcutaneous, oral (*e.g.*, inhalation), transdermal (topical), transmucosal, and rectal administration. Solutions or suspensions used for parenteral, intradermal, or subcutaneous application can include the following components: a sterile diluent such as water for injection, saline solution, fixed oils, polyethylene glycols, glycerine, propylene glycol or other synthetic solvents; antibacterial agents such as benzyl alcohol or methyl parabens; antioxidants such as ascorbic acid or sodium bisulfite; chelating agents such as ethylenediamine-tetraacetic acid; buffers such as acetates, citrates or phosphates and agents for the adjustment of tonicity such as sodium chloride or dextrose. pH can be adjusted with acids or bases, such as hydrochloric acid or sodium hydroxide. The parenteral preparation can be enclosed in ampules, disposable syringes or multiple dose vials made of glass or plastic.

Pharmaceutical compositions suitable for injectable use include sterile aqueous solutions (where water soluble) or dispersions and sterile powders for the extemporaneous preparation of sterile injectable solutions or dispersions. For intravenous administration, suitable carriers include physiological saline, bacteriostatic water, Cremophor EL (BASF; Parsippany, NJ) or phosphate buffered saline (PBS). In all cases, the composition must be sterile and should be fluid to the extent that easy syringability exists. It must be stable under the conditions of manufacture and storage and must be preserved against the contaminating action of microorganisms such as bacteria and fungi. The carrier can be a solvent or dispersion medium containing, for example, water, ethanol, polyol (for example, glycerol, propylene glycol, and liquid polyethylene glycol, and the like), and suitable mixtures thereof. The proper fluidity can be maintained, for example, by the use of a coating such as lecithin, by the maintenance

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of the required particle size in the case of dispersion and by the use of surfactants.

Prevention of the action of microorganisms can be achieved by various antibacterial and antifungal agents, for example, parabens, chlorobutanol, phenol, ascorbic acid, thimerosal, and the like. In many cases, it will be preferable to include isotonic agents, for example, sugars, polyalcohols such as mannitol, sorbitol, or sodium chloride in the composition. Prolonged absorption of the injectable compositions can be brought about by including in the composition an agent which delays absorption, for example, aluminum monostearate and gelatin.

Sterile injectable solutions can be prepared by incorporating the active compound (*e.g.*, a polypeptide or antibody) in the required amount in an appropriate solvent with one or a combination of ingredients enumerated above, as required, followed by filtered sterilization. Generally, dispersions are prepared by incorporating the active compound into a sterile vehicle which contains a basic dispersion medium, and then incorporating the required other ingredients from those enumerated above. In the case of sterile powders for the preparation of sterile injectable solutions, the preferred methods of preparation are vacuum drying and freeze-drying which yields a powder of the active ingredient plus any additional desired ingredient from a previously sterile-filtered solution thereof.

Oral compositions generally include an inert diluent or an edible carrier. They can be enclosed in gelatin capsules or compressed into tablets. For the purpose of oral therapeutic administration, the active compound can be incorporated with excipients and used in the form of tablets, troches, or capsules. Oral compositions can also be prepared using a fluid carrier for use as a mouthwash, wherein the compound in the fluid carrier is applied orally and swished and expectorated or swallowed.

Pharmaceutically compatible binding agents, and/or adjuvant materials can be included as part of the composition. The tablets, pills, capsules, troches, and the like can contain any of the following ingredients, or compounds of a similar nature: a binder such as microcrystalline cellulose, gum tragacanth or gelatin; an excipient such as starch or lactose, a disintegrating agent such as alginic acid, Primogel, or corn starch; a lubricant such as magnesium stearate or Sterotes; a glidant such as colloidal silicon dioxide; a sweetening agent such as sucrose or saccharin; or a flavoring agent such as peppermint, methyl salicylate, or orange flavoring.

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For administration by inhalation, the compounds are delivered in the form of an aerosol spray from a pressurized container or dispenser which contains a suitable propellant, *e.g.*, a gas such as carbon dioxide, or a nebulizer.

Systemic administration can also be by transmucosal or transdermal means. For
5 transmucosal or transdermal administration, penetrants appropriate to the barrier to be permeated are used in the formulation. Such penetrants are generally known in the art, and include, for example, for transmucosal administration, detergents, bile salts, and fusidic acid derivatives. Transmucosal administration can be accomplished through the use of nasal sprays or suppositories. For transdermal administration, the active
10 compounds are formulated into ointments, salves, gels, or creams as generally known in the art.

The compounds can also be prepared in the form of suppositories (*e.g.*, with conventional suppository bases such as cocoa butter and other glycerides) or retention enemas for rectal delivery.

15 In one embodiment, the active compounds are prepared with carriers that will protect the compound against rapid elimination from the body, such as a controlled release formulation, including implants and microencapsulated delivery systems. Biodegradable, biocompatible polymers can be used, such as ethylene vinyl acetate, polyanhydrides, polyglycolic acid, collagen, polyorthoesters, and polylactic acid.
20 Methods for preparation of such formulations will be apparent to those skilled in the art. The materials can also be obtained commercially from Alza Corporation and Nova Pharmaceuticals, Inc. Liposomal suspensions (including liposomes having monoclonal antibodies incorporated therein or thereon) can also be used as pharmaceutically acceptable carriers. These can be prepared according to methods known to those skilled
25 in the art, for example, as described in U.S. Patent No. 4,522,811.

It is especially advantageous to formulate oral or parenteral compositions in dosage unit form for ease of administration and uniformity of dosage. Dosage unit form as used herein refers to physically discrete units suited as unitary dosages for the subject to be treated; each unit containing a predetermined quantity of active compound
30 calculated to produce the desired therapeutic effect in association with the required pharmaceutical carrier. The specification for the dosage unit forms of the invention are dictated by and directly dependent on the unique characteristics of the active compound

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and the particular therapeutic effect to be achieved, and the limitations inherent in the art of compounding such an active compound for the treatment of individuals.

For antibodies, the preferred dosage is 0.1 mg/kg to 100 mg/kg of body weight (generally 10 mg/kg to 20 mg/kg). If the antibody is to act in the brain, a dosage of 50 mg/kg to 100 mg/kg is usually appropriate. Generally, partially human antibodies and fully human antibodies have a longer half-life within the human body than other antibodies. Accordingly, lower dosages and less frequent administration is often possible. Modifications such as lipidation can be used to stabilize antibodies and to enhance uptake and tissue penetration (e.g., into the ovarian epithelium). A method for lipidation of antibodies is described by Cruikshank *et al.* (1997) *J. Acquired Immune Deficiency Syndromes and Human Retrovirology* 14:193.

The nucleic acid molecules corresponding to a marker of the invention can be inserted into vectors and used as gene therapy vectors. Gene therapy vectors can be delivered to a subject by, for example, intravenous injection, local administration (U.S. Patent 5,328,470), or by stereotactic injection (see, e.g., Chen *et al.*, 1994, *Proc. Natl. Acad. Sci. USA* 91:3054-3057). The pharmaceutical preparation of the gene therapy vector can include the gene therapy vector in an acceptable diluent, or can comprise a slow release matrix in which the gene delivery vehicle is imbedded. Alternatively, where the complete gene delivery vector can be produced intact from recombinant cells, e.g. retroviral vectors, the pharmaceutical preparation can include one or more cells which produce the gene delivery system.

The pharmaceutical compositions can be included in a container, pack, or dispenser together with instructions for administration.

V. Predictive Medicine

The present invention pertains to the field of predictive medicine in which diagnostic assays, prognostic assays, pharmacogenomics, and monitoring clinical trials are used for prognostic (predictive) purposes to thereby treat an individual prophylactically. Accordingly, one aspect of the present invention relates to diagnostic assays for determining the level of expression of polypeptides or nucleic acids corresponding to one or more markers of the invention, in order to determine whether an individual is at risk of developing ovarian cancer. Such assays can be used for

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prognostic or predictive purposes to thereby prophylactically treat an individual prior to the onset of the cancer.

Yet another aspect of the invention pertains to monitoring the influence of agents (e.g., drugs or other compounds administered either to inhibit ovarian cancer or to treat
5 or prevent any other disorder {i.e. in order to understand any ovarian carcinogenic effects that such treatment may have}) on the expression or activity of a marker of the invention in clinical trials. These and other agents are described in further detail in the following sections.

10 A. Diagnostic Assays

An exemplary method for detecting the presence or absence of a polypeptide or nucleic acid corresponding to a marker of the invention in a biological sample involves obtaining a biological sample (e.g. an ovary-associated body fluid) from a test subject and contacting the biological sample with a compound or an agent capable of detecting
15 the polypeptide or nucleic acid (e.g., mRNA, genomic DNA, or cDNA). The detection methods of the invention can thus be used to detect mRNA, protein, cDNA, or genomic DNA, for example, in a biological sample *in vitro* as well as *in vivo*. For example, *in vitro* techniques for detection of mRNA include Northern hybridizations and *in situ* hybridizations. *In vitro* techniques for detection of a polypeptide corresponding to a
20 marker of the invention include enzyme linked immunosorbent assays (ELISAs), Western blots, immunoprecipitations and immunofluorescence. *In vitro* techniques for detection of genomic DNA include Southern hybridizations. Furthermore, *in vivo* techniques for detection of a polypeptide corresponding to a marker of the invention include introducing into a subject a labeled antibody directed against the polypeptide.
25 For example, the antibody can be labeled with a radioactive marker whose presence and location in a subject can be detected by standard imaging techniques.

A general principle of such diagnostic and prognostic assays involves preparing a sample or reaction mixture that may contain a marker, and a probe, under appropriate conditions and for a time sufficient to allow the marker and probe to interact and bind,
30 thus forming a complex that can be removed and/or detected in the reaction mixture. These assays can be conducted in a variety of ways.

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For example, one method to conduct such an assay would involve anchoring the marker or probe onto a solid phase support, also referred to as a substrate, and detecting target marker/probe complexes anchored on the solid phase at the end of the reaction.

In one embodiment of such a method, a sample from a subject, which is to be assayed
5 for presence and/or concentration of marker, can be anchored onto a carrier or solid phase support. In another embodiment, the reverse situation is possible, in which the probe can be anchored to a solid phase and a sample from a subject can be allowed to react as an unanchored component of the assay.

There are many established methods for anchoring assay components to a solid
10 phase. These include, without limitation, marker or probe molecules which are immobilized through conjugation of biotin and streptavidin. Such biotinylated assay components can be prepared from biotin-NHS (N-hydroxy-succinimide) using techniques known in the art (*e.g.*, biotinylation kit, Pierce Chemicals, Rockford, IL), and immobilized in the wells of streptavidin-coated 96 well plates (Pierce Chemical). In
15 certain embodiments, the surfaces with immobilized assay components can be prepared in advance and stored.

Other suitable carriers or solid phase supports for such assays include any material capable of binding the class of molecule to which the marker or probe belongs. Well-known supports or carriers include, but are not limited to, glass, polystyrene,
20 nylon, polypropylene, nylon, polyethylene, dextran, amylases, natural and modified celluloses, polyacrylamides, gabbros, and magnetite.

In order to conduct assays with the above mentioned approaches, the non-immobilized component is added to the solid phase upon which the second component is anchored. After the reaction is complete, uncomplexed components may be removed
25 (*e.g.*, by washing) under conditions such that any complexes formed will remain immobilized upon the solid phase. The detection of marker/probe complexes anchored to the solid phase can be accomplished in a number of methods outlined herein.

In a preferred embodiment, the probe, when it is the unanchored assay component, can be labeled for the purpose of detection and readout of the assay, either
30 directly or indirectly, with detectable labels discussed herein and which are well-known to one skilled in the art.

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It is also possible to directly detect marker/probe complex formation without further manipulation or labeling of either component (marker or probe), for example by utilizing the technique of fluorescence energy transfer (see, for example, Lakowicz *et al.*, U.S. Patent No. 5,631,169; Stavrianopoulos, *et al.*, U.S. Patent No. 4,868,103). A fluorophore label on the first, 'donor' molecule is selected such that, upon excitation with incident light of appropriate wavelength, its emitted fluorescent energy will be absorbed by a fluorescent label on a second 'acceptor' molecule, which in turn is able to fluoresce due to the absorbed energy. Alternately, the 'donor' protein molecule may simply utilize the natural fluorescent energy of tryptophan residues. Labels are chosen that emit different wavelengths of light, such that the 'acceptor' molecule label may be differentiated from that of the 'donor'. Since the efficiency of energy transfer between the labels is related to the distance separating the molecules, spatial relationships between the molecules can be assessed. In a situation in which binding occurs between the molecules, the fluorescent emission of the 'acceptor' molecule label in the assay should be maximal. An FET binding event can be conveniently measured through standard fluorometric detection means well known in the art (*e.g.*, using a fluorimeter).

In another embodiment, determination of the ability of a probe to recognize a marker can be accomplished without labeling either assay component (probe or marker) by utilizing a technology such as real-time Biomolecular Interaction Analysis (BIA) (see, *e.g.*, Sjolander, S. and Urbaniczky, C., 1991, *Anal. Chem.* 63:2338-2345 and Szabo *et al.*, 1995, *Curr. Opin. Struct. Biol.* 5:699-705). As used herein, "BIA" or "surface plasmon resonance" is a technology for studying biospecific interactions in real time, without labeling any of the interactants (*e.g.*, BIAcore). Changes in the mass at the binding surface (indicative of a binding event) result in alterations of the refractive index of light near the surface (the optical phenomenon of surface plasmon resonance (SPR)), resulting in a detectable signal which can be used as an indication of real-time reactions between biological molecules.

Alternatively, in another embodiment, analogous diagnostic and prognostic assays can be conducted with marker and probe as solutes in a liquid phase. In such an assay, the complexed marker and probe are separated from uncomplexed components by any of a number of standard techniques, including but not limited to: differential centrifugation, chromatography, electrophoresis and immunoprecipitation. In

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differential centrifugation, marker/probe complexes may be separated from uncomplexed assay components through a series of centrifugal steps, due to the different sedimentation equilibria of complexes based on their different sizes and densities (see, for example, Rivas, G., and Minton, A.P., 1993, *Trends Biochem Sci.* 18(8):284-7).

- 5 Standard chromatographic techniques may also be utilized to separate complexed molecules from uncomplexed ones. For example, gel filtration chromatography separates molecules based on size, and through the utilization of an appropriate gel filtration resin in a column format, for example, the relatively larger complex may be separated from the relatively smaller uncomplexed components. Similarly, the
- 10 relatively different charge properties of the marker/probe complex as compared to the uncomplexed components may be exploited to differentiate the complex from uncomplexed components, for example through the utilization of ion-exchange chromatography resins. Such resins and chromatographic techniques are well known to one skilled in the art (see, *e.g.*, Heegaard, N.H., 1998, *J. Mol. Recognit.* Winter 11(1-6):141-8; Hage, D.S., and Tweed, S.A. *J Chromatogr B Biomed Sci Appl* 1997 Oct 15 10;699(1-2):499-525). Gel electrophoresis may also be employed to separate complexed assay components from unbound components (see, *e.g.*, Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, New York, 1987-1999). In this technique, protein or nucleic acid complexes are separated based on size or
- 20 charge, for example. In order to maintain the binding interaction during the electrophoretic process, non-denaturing gel matrix materials and conditions in the absence of reducing agent are typically preferred. Appropriate conditions to the particular assay and components thereof will be well known to one skilled in the art.

- In a particular embodiment, the level of mRNA corresponding to the marker can
- 25 be determined both by *in situ* and by *in vitro* formats in a biological sample using methods known in the art. The term "biological sample" is intended to include tissues, cells, biological fluids and isolates thereof, isolated from a subject, as well as tissues, cells and fluids present within a subject. Many expression detection methods use isolated RNA. For *in vitro* methods, any RNA isolation technique that does not select
- 30 against the isolation of mRNA can be utilized for the purification of RNA from ovarian cells (see, *e.g.*, Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, New York 1987-1999). Additionally, large numbers of tissue samples can

readily be processed using techniques well known to those of skill in the art, such as, for example, the single-step RNA isolation process of Chomczynski (1989, U.S. Patent No. 4,843,155).

The isolated mRNA can be used in hybridization or amplification assays that
5 include, but are not limited to, Southern or Northern analyses, polymerase chain reaction analyses and probe arrays. One preferred diagnostic method for the detection of mRNA levels involves contacting the isolated mRNA with a nucleic acid molecule (probe) that can hybridize to the mRNA encoded by the gene being detected. The nucleic acid probe can be, for example, a full-length cDNA, or a portion thereof, such as an oligonucleotide
10 of at least 7, 15, 30, 50, 100, 250 or 500 nucleotides in length and sufficient to specifically hybridize under stringent conditions to a mRNA or genomic DNA encoding a marker of the present invention. Other suitable probes for use in the diagnostic assays of the invention are described herein. Hybridization of an mRNA with the probe indicates that the marker in question is being expressed.

15 In one format, the mRNA is immobilized on a solid surface and contacted with a probe, for example by running the isolated mRNA on an agarose gel and transferring the mRNA from the gel to a membrane, such as nitrocellulose. In an alternative format, the probe(s) are immobilized on a solid surface and the mRNA is contacted with the probe(s), for example, in an Affymetrix gene chip array. A skilled artisan can readily
20 adapt known mRNA detection methods for use in detecting the level of mRNA encoded by the markers of the present invention.

An alternative method for determining the level of mRNA corresponding to a marker of the present invention in a sample involves the process of nucleic acid amplification, *e.g.*, by rtPCR (the experimental embodiment set forth in Mullis, 1987,
25 U.S. Patent No. 4,683,202), ligase chain reaction (Barany, 1991, *Proc. Natl. Acad. Sci. USA*, 88:189-193), self sustained sequence replication (Guatelli *et al.*, 1990, *Proc. Natl. Acad. Sci. USA* 87:1874-1878), transcriptional amplification system (Kwoh *et al.*, 1989, *Proc. Natl. Acad. Sci. USA* 86:1173-1177), Q-Beta Replicase (Lizardi *et al.*, 1988, *Bio/Technology* 6:1197), rolling circle replication (Lizardi *et al.*, U.S. Patent No.
30 5,854,033) or any other nucleic acid amplification method, followed by the detection of the amplified molecules using techniques well known to those of skill in the art. These detection schemes are especially useful for the detection of nucleic acid molecules if

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such molecules are present in very low numbers. As used herein, amplification primers are defined as being a pair of nucleic acid molecules that can anneal to 5' or 3' regions of a gene (plus and minus strands, respectively, or vice-versa) and contain a short region in between. In general, amplification primers are from about 10 to 30 nucleotides in length and flank a region from about 50 to 200 nucleotides in length. Under appropriate conditions and with appropriate reagents, such primers permit the amplification of a nucleic acid molecule comprising the nucleotide sequence flanked by the primers.

For *in situ* methods, mRNA does not need to be isolated from the ovarian cells prior to detection. In such methods, a cell or tissue sample is prepared/processed using known histological methods. The sample is then immobilized on a support, typically a glass slide, and then contacted with a probe that can hybridize to mRNA that encodes the marker.

As an alternative to making determinations based on the absolute expression level of the marker, determinations may be based on the normalized expression level of the marker. Expression levels are normalized by correcting the absolute expression level of a marker by comparing its expression to the expression of a gene that is not a marker, *e.g.*, a housekeeping gene that is constitutively expressed. Suitable genes for normalization include housekeeping genes such as the actin gene, or epithelial cell-specific genes. This normalization allows the comparison of the expression level in one sample, *e.g.*, a patient sample, to another sample, *e.g.*, a non-ovarian cancer sample, or between samples from different sources.

Alternatively, the expression level can be provided as a relative expression level. To determine a relative expression level of a marker, the level of expression of the marker is determined for 10 or more samples of normal versus cancer cell isolates, preferably 50 or more samples, prior to the determination of the expression level for the sample in question. The mean expression level of each of the genes assayed in the larger number of samples is determined and this is used as a baseline expression level for the marker. The expression level of the marker determined for the test sample (absolute level of expression) is then divided by the mean expression value obtained for that marker. This provides a relative expression level.

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Preferably, the samples used in the baseline determination will be from ovarian cancer or from non-ovarian cancer cells of ovarian tissue. The choice of the cell source is dependent on the use of the relative expression level. Using expression found in normal tissues as a mean expression score aids in validating whether the marker assayed is ovarian specific (versus normal cells). In addition, as more data is accumulated, the mean expression value can be revised, providing improved relative expression values based on accumulated data. Expression data from ovarian cells provides a means for grading the severity of the ovarian cancer state.

In another embodiment of the present invention, a polypeptide corresponding to a marker is detected. A preferred agent for detecting a polypeptide of the invention is an antibody capable of binding to a polypeptide corresponding to a marker of the invention, preferably an antibody with a detectable label. Antibodies can be polyclonal, or more preferably, monoclonal. An intact antibody, or a fragment thereof (*e.g.*, Fab or F(ab')₂) can be used. The term "labeled", with regard to the probe or antibody, is intended to encompass direct labeling of the probe or antibody by coupling (*i.e.*, physically linking) a detectable substance to the probe or antibody, as well as indirect labeling of the probe or antibody by reactivity with another reagent that is directly labeled. Examples of indirect labeling include detection of a primary antibody using a fluorescently labeled secondary antibody and end-labeling of a DNA probe with biotin such that it can be detected with fluorescently labeled streptavidin.

Proteins from ovarian cells can be isolated using techniques that are well known to those of skill in the art. The protein isolation methods employed can, for example, be such as those described in Harlow and Lane (Harlow and Lane, 1988, *Antibodies: A Laboratory Manual*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York).

A variety of formats can be employed to determine whether a sample contains a protein that binds to a given antibody. Examples of such formats include, but are not limited to, enzyme immunoassay (EIA), radioimmunoassay (RIA), Western blot analysis and enzyme linked immunoabsorbant assay (ELISA). A skilled artisan can readily adapt known protein/antibody detection methods for use in determining whether ovarian cells express a marker of the present invention.

In one format, antibodies, or antibody fragments, can be used in methods such as Western blots or immunofluorescence techniques to detect the expressed proteins. In such uses, it is generally preferable to immobilize either the antibody or proteins on a solid support. Suitable solid phase supports or carriers include any support capable of
5 binding an antigen or an antibody. Well-known supports or carriers include glass, polystyrene, polypropylene, polyethylene, dextran, nylon, amylases, natural and modified celluloses, polyacrylamides, gabbros, and magnetite.

One skilled in the art will know many other suitable carriers for binding antibody or antigen, and will be able to adapt such support for use with the present invention. For
10 example, protein isolated from ovarian cells can be run on a polyacrylamide gel electrophoresis and immobilized onto a solid phase support such as nitrocellulose. The support can then be washed with suitable buffers followed by treatment with the detectably labeled antibody. The solid phase support can then be washed with the buffer a second time to remove unbound antibody. The amount of bound label on the solid
15 support can then be detected by conventional means.

The invention also encompasses kits for detecting the presence of a polypeptide or nucleic acid corresponding to a marker of the invention in a biological sample (*e.g.* an ovary-associated body fluid such as a urine sample). Such kits can be used to determine if a subject is suffering from or is at increased risk of developing ovarian cancer. For
20 example, the kit can comprise a labeled compound or agent capable of detecting a polypeptide or an mRNA encoding a polypeptide corresponding to a marker of the invention in a biological sample and means for determining the amount of the polypeptide or mRNA in the sample (*e.g.*, an antibody which binds the polypeptide or an oligonucleotide probe which binds to DNA or mRNA encoding the polypeptide). Kits
25 can also include instructions for interpreting the results obtained using the kit.

For antibody-based kits, the kit can comprise, for example: (1) a first antibody (*e.g.*, attached to a solid support) which binds to a polypeptide corresponding to a marker of the invention; and, optionally, (2) a second, different antibody which binds to either the polypeptide or the first antibody and is conjugated to a detectable label.

30 For oligonucleotide-based kits, the kit can comprise, for example: (1) an oligonucleotide, *e.g.*, a detectably labeled oligonucleotide, which hybridizes to a nucleic acid sequence encoding a polypeptide corresponding to a marker of the invention or (2)

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a pair of primers useful for amplifying a nucleic acid molecule corresponding to a marker of the invention. The kit can also comprise, *e.g.*, a buffering agent, a preservative, or a protein stabilizing agent. The kit can further comprise components necessary for detecting the detectable label (*e.g.*, an enzyme or a substrate). The kit can
5 also contain a control sample or a series of control samples which can be assayed and compared to the test sample. Each component of the kit can be enclosed within an individual container and all of the various containers can be within a single package, along with instructions for interpreting the results of the assays performed using the kit.

10 B. Pharmacogenomics

Agents or modulators which have a stimulatory or inhibitory effect on expression of a marker of the invention can be administered to individuals to treat (prophylactically or therapeutically) ovarian cancer in the patient. In conjunction with such treatment, the pharmacogenomics (*i.e.*, the study of the relationship between an individual's genotype
15 and that individual's response to a foreign compound or drug) of the individual may be considered. Differences in metabolism of therapeutics can lead to severe toxicity or therapeutic failure by altering the relation between dose and blood concentration of the pharmacologically active drug. Thus, the pharmacogenomics of the individual permits the selection of effective agents (*e.g.*, drugs) for prophylactic or therapeutic treatments
20 based on a consideration of the individual's genotype. Such pharmacogenomics can further be used to determine appropriate dosages and therapeutic regimens. Accordingly, the level of expression of a marker of the invention in an individual can be determined to thereby select appropriate agent(s) for therapeutic or prophylactic treatment of the individual.

25 Pharmacogenomics deals with clinically significant variations in the response to drugs due to altered drug disposition and abnormal action in affected persons. See, *e.g.*, Linder (1997) *Clin. Chem.* 43(2):254-266. In general, two types of pharmacogenetic conditions can be differentiated. Genetic conditions transmitted as a single factor altering the way drugs act on the body are referred to as "altered drug action." Genetic
30 conditions transmitted as single factors altering the way the body acts on drugs are referred to as "altered drug metabolism". These pharmacogenetic conditions can occur either as rare defects or as polymorphisms. For example, glucose-6-phosphate

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dehydrogenase (G6PD) deficiency is a common inherited enzymopathy in which the main clinical complication is hemolysis after ingestion of oxidant drugs (anti-malarials, sulfonamides, analgesics, nitrofurans) and consumption of fava beans.

As an illustrative embodiment, the activity of drug metabolizing enzymes is a major determinant of both the intensity and duration of drug action. The discovery of genetic polymorphisms of drug metabolizing enzymes (*e.g.*, N-acetyltransferase 2 (NAT 2) and cytochrome P450 enzymes CYP2D6 and CYP2C19) has provided an explanation as to why some patients do not obtain the expected drug effects or show exaggerated drug response and serious toxicity after taking the standard and safe dose of a drug. These polymorphisms are expressed in two phenotypes in the population, the extensive metabolizer (EM) and poor metabolizer (PM). The prevalence of PM is different among different populations. For example, the gene coding for CYP2D6 is highly polymorphic and several mutations have been identified in PM, which all lead to the absence of functional CYP2D6. Poor metabolizers of CYP2D6 and CYP2C19 quite frequently experience exaggerated drug response and side effects when they receive standard doses. If a metabolite is the active therapeutic moiety, a PM will show no therapeutic response, as demonstrated for the analgesic effect of codeine mediated by its CYP2D6-formed metabolite morphine. The other extreme are the so called ultra-rapid metabolizers who do not respond to standard doses. Recently, the molecular basis of ultra-rapid metabolism has been identified to be due to CYP2D6 gene amplification.

Thus, the level of expression of a marker of the invention in an individual can be determined to thereby select appropriate agent(s) for therapeutic or prophylactic treatment of the individual. In addition, pharmacogenetic studies can be used to apply genotyping of polymorphic alleles encoding drug-metabolizing enzymes to the identification of an individual's drug responsiveness phenotype. This knowledge, when applied to dosing or drug selection, can avoid adverse reactions or therapeutic failure and thus enhance therapeutic or prophylactic efficiency when treating a subject with a modulator of expression of a marker of the invention.

30 C. Monitoring Clinical Trials

Monitoring the influence of agents (*e.g.*, drug compounds) on the level of expression of a marker of the invention can be applied not only in basic drug screening,

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but also in clinical trials. For example, the effectiveness of an agent to affect marker expression can be monitored in clinical trials of subjects receiving treatment for ovarian cancer. In a preferred embodiment, the present invention provides a method for monitoring the effectiveness of treatment of a subject with an agent (*e.g.*, an agonist, antagonist, peptidomimetic, protein, peptide, nucleic acid, small molecule, or other drug candidate) comprising the steps of (i) obtaining a pre-administration sample from a subject prior to administration of the agent; (ii) detecting the level of expression of one or more selected markers of the invention in the pre-administration sample; (iii) obtaining one or more post-administration samples from the subject; (iv) detecting the level of expression of the marker(s) in the post-administration samples; (v) comparing the level of expression of the marker(s) in the pre-administration sample with the level of expression of the marker(s) in the post-administration sample or samples; and (vi) altering the administration of the agent to the subject accordingly. For example, increased administration of the agent can be desirable to increase expression of the marker(s) to higher levels than detected, *i.e.*, to increase the effectiveness of the agent. Alternatively, decreased administration of the agent can be desirable to decrease expression of the marker(s) to lower levels than detected, *i.e.*, to decrease the effectiveness of the agent.

20 D. Electronic Apparatus Readable Media and Arrays

Electronic apparatus readable media comprising a marker of the present invention is also provided. As used herein, "electronic apparatus readable media" refers to any suitable medium for storing, holding or containing data or information that can be read and accessed directly by an electronic apparatus. Such media can include, but are not limited to: magnetic storage media, such as floppy discs, hard disc storage medium, and magnetic tape; optical storage media such as compact disc; electronic storage media such as RAM, ROM, EPROM, EEPROM and the like; general hard disks and hybrids of these categories such as magnetic/optical storage media. The medium is adapted or configured for having recorded thereon a marker of the present invention.

30 As used herein, the term "electronic apparatus" is intended to include any suitable computing or processing apparatus or other device configured or adapted for storing data or information. Examples of electronic apparatus suitable for use with the

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present invention include stand-alone computing apparatus; networks, including a local area network (LAN), a wide area network (WAN) Internet, Intranet, and Extranet; electronic appliances such as a personal digital assistants (PDAs), cellular phone, pager and the like; and local and distributed processing systems.

5 As used herein, "recorded" refers to a process for storing or encoding information on the electronic apparatus readable medium. Those skilled in the art can readily adopt any of the presently known methods for recording information on known media to generate manufactures comprising the markers of the present invention.

10 A variety of software programs and formats can be used to store the marker information of the present invention on the electronic apparatus readable medium. For example, the nucleic acid sequence corresponding to the markers can be represented in a word processing text file, formatted in commercially-available software such as WordPerfect and MicroSoft Word, or represented in the form of an ASCII file, stored in a database application, such as DB2, Sybase, Oracle, or the like, as well as in other
15 forms. Any number of dataprocessor structuring formats (*e.g.*, text file or database) may be employed in order to obtain or create a medium having recorded thereon the the markers of the present invention.

20 By providing the markers of the invention in readable form, one can routinely access the marker sequence information for a variety of purposes. For example, one skilled in the art can use the nucleotide or amino acid sequences of the present invention in readable form to compare a target sequence or target structural motif with the sequence information stored within the data storage means. Search means are used to identify fragments or regions of the sequences of the invention which match a particular target sequence or target motif.

25 The present invention therefore provides a medium for holding instructions for performing a method for determining whether a subject has ovarian cancer or a pre-disposition to ovarian cancer, wherein the method comprises the steps of determining the presence or absence of a marker and based on the presence or absence of the marker, determining whether the subject has ovarian cancer or a pre-disposition to ovarian
30 cancer and/or recommending a particular treatment for ovarian cancer or pre-ovarian cancer condition.

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The present invention further provides in an electronic system and/or in a network, a method for determining whether a subject has ovarian cancer or a pre-disposition to ovarian cancer associated with a marker wherein the method comprises the steps of determining the presence or absence of the marker, and based on the presence or absence of the marker, determining whether the subject has ovarian cancer or a pre-disposition to ovarian cancer, and/or recommending a particular treatment for the ovarian cancer or pre-ovarian cancer condition. The method may further comprise the step of receiving phenotypic information associated with the subject and/or acquiring from a network phenotypic information associated with the subject.

10 The present invention also provides in a network, a method for determining whether a subject has ovarian cancer or a pre-disposition to ovarian cancer associated with a marker, said method comprising the steps of receiving information associated with the marker receiving phenotypic information associated with the subject, acquiring information from the network corresponding to the marker and/or ovarian cancer, and
15 based on one or more of the phenotypic information, the marker, and the acquired information, determining whether the subject has a ovarian cancer or a pre-disposition to ovarian cancer. The method may further comprise the step of recommending a particular treatment for the ovarian cancer or pre-ovarian cancer condition.

The present invention also provides a business method for determining whether a
20 subject has ovarian cancer or a pre-disposition to ovarian cancer, said method comprising the steps of receiving information associated with the marker, receiving phenotypic information associated with the subject, acquiring information from the network corresponding to the marker and/or ovarian cancer, and based on one or more of the phenotypic information, the marker, and the acquired information, determining
25 whether the subject has ovarian cancer or a pre-disposition to ovarian cancer. The method may further comprise the step of recommending a particular treatment for the ovarian cancer or pre-ovarian cancer condition.

The invention also includes an array comprising a marker of the present invention. The array can be used to assay expression of one or more genes in the array.
30 In one embodiment, the array can be used to assay gene expression in a tissue to ascertain tissue specificity of genes in the array. In this manner, up to about 7600 genes

can be simultaneously assayed for expression. This allows a profile to be developed showing a battery of genes specifically expressed in one or more tissues.

In addition to such qualitative determination, the invention allows the quantitation of gene expression. Thus, not only tissue specificity, but also the level of expression of a battery of genes in the tissue is ascertainable. Thus, genes can be grouped on the basis of their tissue expression *per se* and level of expression in that tissue. This is useful, for example, in ascertaining the relationship of gene expression between or among tissues. Thus, one tissue can be perturbed and the effect on gene expression in a second tissue can be determined. In this context, the effect of one cell type on another cell type in response to a biological stimulus can be determined. Such a determination is useful, for example, to know the effect of cell-cell interaction at the level of gene expression. If an agent is administered therapeutically to treat one cell type but has an undesirable effect on another cell type, the invention provides an assay to determine the molecular basis of the undesirable effect and thus provides the opportunity to co-administer a counteracting agent or otherwise treat the undesired effect. Similarly, even within a single cell type, undesirable biological effects can be determined at the molecular level. Thus, the effects of an agent on expression of other than the target gene can be ascertained and counteracted.

In another embodiment, the array can be used to monitor the time course of expression of one or more genes in the array. This can occur in various biological contexts, as disclosed herein, for example development of ovarian cancer, progression of ovarian cancer, and processes, such a cellular transformation associated with ovarian cancer.

The array is also useful for ascertaining the effect of the expression of a gene on the expression of other genes in the same cell or in different cells. This provides, for example, for a selection of alternate molecular targets for therapeutic intervention if the ultimate or downstream target cannot be regulated.

The array is also useful for ascertaining differential expression patterns of one or more genes in normal and abnormal cells. This provides a battery of genes that could serve as a molecular target for diagnosis or therapeutic intervention.

E. Surrogate Markers

The markers of the invention may serve as surrogate markers for one or more disorders or disease states or for conditions leading up to disease states, and in particular, ovarian cancer. As used herein, a "surrogate marker" is an objective
5 biochemical marker which correlates with the absence or presence of a disease or disorder, or with the progression of a disease or disorder (*e.g.*, with the presence or absence of a tumor). The presence or quantity of such markers is independent of the disease. Therefore, these markers may serve to indicate whether a particular course of treatment is effective in lessening a disease state or disorder. Surrogate markers are of
10 particular use when the presence or extent of a disease state or disorder is difficult to assess through standard methodologies (*e.g.*, early stage tumors), or when an assessment of disease progression is desired before a potentially dangerous clinical endpoint is reached (*e.g.*, an assessment of cardiovascular disease may be made using cholesterol levels as a surrogate marker, and an analysis of HIV infection may be made using HIV
15 RNA levels as a surrogate marker, well in advance of the undesirable clinical outcomes of myocardial infarction or fully-developed AIDS). Examples of the use of surrogate markers in the art include: Koomen *et al.* (2000) *J. Mass. Spectrom.* 35: 258-264; and James (1994) *AIDS Treatment News Archive* 209.

The markers of the invention are also useful as pharmacodynamic markers. As
20 used herein, a "pharmacodynamic marker" is an objective biochemical marker which correlates specifically with drug effects. The presence or quantity of a pharmacodynamic marker is not related to the disease state or disorder for which the drug is being administered; therefore, the presence or quantity of the marker is indicative of the presence or activity of the drug in a subject. For example, a
25 pharmacodynamic marker may be indicative of the concentration of the drug in a biological tissue, in that the marker is either expressed or transcribed or not expressed or transcribed in that tissue in relationship to the level of the drug. In this fashion, the distribution or uptake of the drug may be monitored by the pharmacodynamic marker. Similarly, the presence or quantity of the pharmacodynamic marker may be related to
30 the presence or quantity of the metabolic product of a drug, such that the presence or quantity of the marker is indicative of the relative breakdown rate of the drug *in vivo*. Pharmacodynamic markers are of particular use in increasing the sensitivity of detection

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of drug effects, particularly when the drug is administered in low doses. Since even a small amount of a drug may be sufficient to activate multiple rounds of marker transcription or expression, the amplified marker may be in a quantity which is more readily detectable than the drug itself. Also, the marker may be more easily detected

5 due to the nature of the marker itself; for example, using the methods described herein, antibodies may be employed in an immune-based detection system for a protein marker, or marker-specific radiolabeled probes may be used to detect a mRNA marker.

Furthermore, the use of a pharmacodynamic marker may offer mechanism-based prediction of risk due to drug treatment beyond the range of possible direct

10 observations. Examples of the use of pharmacodynamic markers in the art include: Matsuda *et al.* US 6,033,862; Hattis *et al.* (1991) *Env. Health Perspect.* 90: 229-238; Schentag (1999) *Am. J. Health-Syst. Pharm.* 56 Suppl. 3: S21-S24; and Nicolau (1999) *Am. J. Health-Syst. Pharm.* 56 Suppl. 3: S16-S20.

The markers of the invention are also useful as pharmacogenomic markers. As

15 used herein, a "pharmacogenomic marker" is an objective biochemical marker which correlates with a specific clinical drug response or susceptibility in a subject (see, e.g., McLeod *et al.* (1999) *Eur. J. Cancer* 35(12): 1650-1652). The presence or quantity of the pharmacogenomic marker is related to the predicted response of the subject to a specific drug or class of drugs prior to administration of the drug. By assessing the

20 presence or quantity of one or more pharmacogenomic markers in a subject, a drug therapy which is most appropriate for the subject, or which is predicted to have a greater degree of success, may be selected. For example, based on the presence or quantity of RNA or protein for specific tumor markers in a subject, a drug or course of treatment may be selected that is optimized for the treatment of the specific tumor likely to be

25 present in the subject. Similarly, the presence or absence of a specific sequence mutation in marker DNA may correlate with drug response. The use of pharmacogenomic markers therefore permits the application of the most appropriate treatment for each subject without having to administer the therapy.

VI. Experimental Protocol

A. Subtracted Libraries

Subtracted libraries are generated using a PCR based method that allows the isolation of clones expressed at higher levels in one population of mRNA (tester) compared to another population (driver). Both tester and driver mRNA populations are converted into cDNA by reverse transcription, and then PCR amplified using the SMART PCR kit from Clontech. Tester and driver cDNAs are then hybridized using the PCR-Select cDNA subtraction kit from Clontech. This technique results in both subtraction and normalization, which is an equalization of copy number of low-abundance and high-abundance sequences. After generation of the subtractive libraries, a group of 96 or more clones from each library is tested to confirm differential expression by reverse Southern hybridization.

To create the subtracted libraries, a first group of regular cDNA libraries was constructed. Library johOa was constructed from a pool of 5 normal ovarian epithelial cell cultures. Library johOb was constructed from a pool of 5 ascites short cultured samples from ovarian cancer patients. Library johOc was constructed from a pool of 6 serous late stage (III/IV) tumor samples. Three subtracted libraries were generated from tumor samples. Library johOd was a subtracted ascites library, where the tester was johOb, and the driver was johOa. The johOe and the johOf library were both subtracted stage III/IV serous tumor libraries. The tester for both of these libraries was johOc, and the driver was a pooled RNA from normal tissues. The tissues used for this driver pool were: kidney, small intestine, prostate, lung, heart, muscle, spleen, pancreas, liver, and lymphocyte. Library cMhOg was the same as the johOc and johOf libraries, with the exception that normal ovary was added to the driver. cMhOh, i, j, and k are all stage I/II subtracted libraries made from pooled tumor RNAs of different histological types (h=serous, I=endometrioid, j=clear cell, k=mucinous). The driver was the same for these 4 libraries. It consisted of normal ovarian epithelial RNA and PBML RNA. Of the markers listed in Table 1, SEQ ID NOS: 1-129, 916-1029, 1566-1571 and 1607-1865 were identified in library johOa. Markers identified in johOb include SEQ ID NOS: 130-177, 1030-1081, 1572-1574, and 1866-1974. Markers identified in johOc include SEQ ID NOS: 178-269, 1082-1120, 1575-1577, and 1975-2060. Markers identified in johOd include SEQ ID NOS: 270-370, 1121-1304, 1578-1592, and 2061-2244. Markers

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identified in johOe include SEQ ID NOS: 371-611, 1305-1416, 1593-1596 and 2245-2487. Markers identified in johOf include SEQ ID NOS: 612-915, 1417-1565, 1597-1606, and 2488-2871. Of the markers listed in Table 1A, SEQ ID NOS: 2872-2976, 3817-3898, 4438-4443 and 4474-4675 were identified in library cMhOg. Markers
5 identified in cMhOh include SEQ ID NOS: 2977-3376, 3899-4072, 4444-4455, and 4676-5303. Markers identified in cMhOi include SEQ ID NOS: 3377-3495, 4073-4158, 4456-4460, and 5304-5637. Markers identified in cMhOj include SEQ ID NOS: 3496-3742, 4195-4390, 4461-4468, and 5638-6197. Markers identified in cMhOk include SEQ ID NOS: 3743-3816, 4391-4437, 4469-4473 and 6198-6398.

10

VII. Summary Of The Data Provided In The Tables

Tables 1, 1A, 2 and 3 are being filed concurrently herewith on a compact disc in lieu of paper copies. The compact disc submitted is formatted from an IBM-PC and is compatible with MS-Windows. The disc contains the following four (4) files:

15 Table1.text, containing 1,223kb, Table1A.text, containing 1,582kb, Table2.text, containing 10,600kb, and Table3.text, containing 568kb. The material on the compact disc, namely Tables 1, 1A, 2 and 3, is expressly incorporated by reference.

Tables 1 and 1A show 6398 novel nucleotide sequences. These 6398 novel sequences were determined to be novel through various BLAST searches of available
20 databases. Of these novel markers, SEQ ID NOS: 1566 – 1606 and 4438-4473 are preferred, SEQ ID NOS: 916-1565 and 3817-4437 are more preferred, and SEQ ID NOS: 1 – 915 and 2872-3816 are most preferred.

The sequences of Tables 1 and 1A were re-interpreted and vector sequences removed and those sequences are set forth in Table 2.

25 Table 3 correlates the SEQ ID NOS. from Tables 1 and 1A with those of Table 2.

The contents of all references, patents, published patent applications, and databases cited throughout this application are hereby incorporated by reference.

30 Other Embodiments

Those skilled in the art will recognize, or be able to ascertain using no more than routine experimentation, many equivalents to the specific embodiments of the invention

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described herein. Such equivalents are intended to be encompassed by the following claims.

What is claimed is:

5

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Claims

1. An isolated nucleic acid molecule comprising a nucleotide sequence of Tables 1-2, or a complement thereof.
- 5 2. A vector which contains the nucleic acid molecule of claim 1.
3. A host cell which contains the nucleic acid molecule of claim 1.
- 10 4. An isolated polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence of Tables 1-2.
5. An antibody which selectively binds to a polypeptide of claim 4.
- 15 6. A method for producing a polypeptide comprising culturing the host cell of claim 3 under conditions in which the nucleic acid molecule is expressed.
7. A method for detecting the presence of a polypeptide of claim 4 in a sample comprising:
 - 20 a) contacting the sample with a compound which selectively binds to the polypeptide; and
 - b) determining whether the compound binds to the polypeptide in the sample to thereby detect the presence of a polypeptide of claim 4 in the sample.
- 25 8. A kit comprising a compound which selectively binds to the polypeptide of claim 4.

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9. A method for detecting the presence of a nucleic acid molecule of claim 1 in a sample comprising:

- a) contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule; and
- 5 b) determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample to thereby detect the presence of a nucleic acid molecule of claim 1 in the sample.

10. The method of claim 9, wherein the sample comprises mRNA molecules and is contacted with a nucleic acid probe.

11. The method of claim 9, wherein the sample is isolated from ovarian tissue.

12. The method of claim 9, wherein the sample is a tumor sample.

13. A kit comprising a compound which selectively hybridizes to a nucleic acid molecule of claim 1.

14. A method of assessing whether a patient is afflicted with ovarian cancer, the method comprising comparing:

- a) the level of expression of a marker in a patient sample, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
 - 25 b) the normal level of expression of the marker in a control non-ovarian cancer sample,
- wherein a significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with ovarian cancer.

15. The method of claim 14, wherein the marker corresponds to a secreted protein.

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16. The method of claim 14, wherein the marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

17. The method of claim 14, wherein the sample comprises cells obtained
5 from the patient.

18. The method of claim 17, wherein the sample is an ovarian tissue sample.

19. The method of claim 14, wherein the sample is an ovary-associated body
10 fluid.

20. The method of claim 14, wherein the level of expression of the marker in the sample is assessed by detecting the presence in the sample of a protein or protein fragment corresponding to the marker.

15

21. The method of claim 20, wherein the presence of the protein or protein fragment is detected using a reagent which specifically binds with the protein or protein fragment.

22. The method of claim 21, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative, and an antibody fragment.

23. The method of claim 14, wherein the level of expression of the marker in the sample is assessed by detecting the presence in the sample of a transcribed
25 polynucleotide or portion thereof, wherein the transcribed polynucleotide comprises the marker.

24. The method of claim 23, wherein the transcribed polynucleotide is an mRNA.

30

25. The method of claim 23, wherein the transcribed polynucleotide is a cDNA.

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26. The method of claim 23, wherein the step of detecting further comprises amplifying the transcribed polynucleotide.

27. The method of claim 14, wherein the level of expression of the marker in
5 the sample is assessed by detecting the presence in the sample of a transcribed polynucleotide which anneals with the marker or anneals with a portion of a polynucleotide wherein the polynucleotide comprises the marker, under stringent hybridization conditions.

10 28. The method of claim 14, wherein the level of expression of the marker in the sample differs from the normal level of expression of the marker in a patient not afflicted with ovarian cancer by a factor of at least about 2.

29. The method of claim 14, wherein the level of expression of the marker in
15 the sample differs from the normal level of expression of the marker in a patient not afflicted with ovarian cancer by a factor of at least about 5.

30. The method of claim 14, comprising comparing:
a) the level of expression in the sample of each of a plurality of
20 markers independently selected from the markers listed in Tables 1-2, and
b) the normal level of expression of each of the plurality of markers in samples of the same type obtained from control humans not afflicted with ovarian cancer,
wherein the level of expression of more than one of the markers is significantly
25 altered, relative to the corresponding normal levels of expression of the markers, is an indication that the patient is afflicted with ovarian cancer.

31. The method of claim 30, wherein the level of expression of each of the markers is significantly altered, relative to the corresponding normal levels of
30 expression of the markers, is an indication that the patient is afflicted with ovarian cancer.

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32. The method of claim 30, wherein the plurality comprises at least three of the markers.

33. The method of claim 30, wherein the plurality comprises at least five of the markers.

34. A method for monitoring the progression of ovarian cancer in a patient, the method comprising:

- a) detecting in a patient sample at a first point in time, the expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2;
- b) repeating step a) at a subsequent point in time; and
- c) comparing the level of expression detected in steps a) and b), and therefrom monitoring the progression of ovarian cancer.

35. The method of claim 34, wherein the marker corresponds to a secreted protein.

36. The method of claim 34, wherein the marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

37. The method of claim 34, wherein the sample comprises cells obtained from the patient.

38. The method of claim 37, wherein the patient sample is an ovarian tissue sample.

39. The method of claim 34, wherein between the first point in time and the subsequent point in time, the patient has undergone surgery to remove ovarian tissue.

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40. A method of assessing the efficacy of a test compound for inhibiting ovarian cancer in a patient, the method comprising comparing:

- 5 a) expression of a marker in a first sample obtained from the patient and exposed to the test compound, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
- b) expression of the marker in a second sample obtained from the patient, wherein the sample is not exposed to the test compound, wherein a significantly lower level of expression of the marker in the first sample, relative to the second sample, is an indication that the test compound is
- 10 efficacious for inhibiting ovarian cancer in the patient.

41. The method of claim 40, wherein the first and second samples are portions of a single sample obtained from the patient.

- 15 42. The method of claim 40, wherein the first and second samples are portions of pooled samples obtained from the patient.

43. A method of assessing the efficacy of a therapy for inhibiting ovarian cancer in a patient, the method comprising comparing:

- 20 a) expression of a marker in the first sample obtained from the patient prior to providing at least a portion of the therapy to the patient, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and
- b) expression of the marker in a second sample obtained from the
- 25 patient following provision of the portion of the therapy, wherein a significantly lower level of expression of the marker in the second sample, relative to the first sample, is an indication that the therapy is efficacious for inhibiting ovarian cancer in the patient.

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44. A method of selecting a composition for inhibiting ovarian cancer in a patient, the method comprising:

- a) obtaining a sample comprising cancer cells from the patient;
- b) separately exposing aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2; and
- d) selecting one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

45. A method of inhibiting ovarian cancer in a patient, the method comprising:

- a) obtaining a sample comprising cancer cells from the patient;
- b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2; and
- d) administering to the patient at least one of the test compositions which alters the level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

46. A kit for assessing whether a patient is afflicted with ovarian cancer, the kit comprising reagents for assessing expression of a marker selected from the group consisting of the markers listed in Tables 1-2.

47. A kit for assessing the presence of ovarian cancer cells, the kit comprising a nucleic acid probe wherein the probe specifically binds with a transcribed polynucleotide corresponding to a marker selected from the group consisting of the markers listed in Tables 1-2.

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48. A kit for assessing the suitability of each of a plurality of compounds for inhibiting ovarian cancer in a patient, the kit comprising:

- a) the plurality of compounds; and
- b) a reagent for assessing expression of a marker selected from the group consisting of the markers listed in Tables 1-2.

49. A method of making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with ovarian cancer, the method comprising:

- isolating a protein or protein fragment corresponding to a marker selected from the group consisting of the markers listed in Tables 1-2;
- immunizing a mammal using the isolated protein or protein fragment;
- isolating splenocytes from the immunized mammal;
- fusing the isolated splenocytes with an immortalized cell line to form hybridomas; and
- screening individual hybridomas for production of an antibody which specifically binds with the protein or protein fragment to isolate the hybridoma.

50. An antibody produced by a hybridoma made by the method of claim 42.

51. A kit for assessing the presence of human ovarian cancer cells, the kit comprising an antibody, wherein the antibody specifically binds with a protein or protein fragment corresponding to a marker selected from the group consisting of the markers listed in Tables 1-2.

52. A method of assessing the ovarian cell carcinogenic potential of a test compound, the method comprising:

- a) maintaining separate aliquots of ovarian cells in the presence and absence of the test compound; and
- b) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2,

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wherein a significantly altered level of expression of the marker in the aliquot maintained in the presence of the test compound, relative to the aliquot maintained in the absence of the test compound, is an indication that the test compound possesses human ovarian cell carcinogenic potential.

5

53. A kit for assessing the ovarian cell carcinogenic potential of a test compound, the kit comprising ovarian cells and a reagent for assessing expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2.

10

54. A method of inhibiting ovarian cancer in a patient at risk for developing ovarian cancer, the method comprising inhibiting expression of a gene corresponding to a marker selected from the markers listed in Tables 1-2.

15

55. A method of treating a patient afflicted with ovarian cancer, the method comprising providing to cells of the patient an antisense oligonucleotide complementary to a polynucleotide corresponding to a marker selected from the markers listed in Tables 1-2.

20

56. A method of inhibiting ovarian cancer in a patient at risk for developing ovarian cancer, the method comprising decreasing expression of a gene corresponding to a marker selected from the markers listed in Tables 1-2.

25

57. A method for determining whether ovarian cancer has metastasized in a patient, the method comprising comparing:

a) the level of expression of a marker in a patient sample, wherein the marker is selected from the group consisting of the markers listed in Tables 1-2, and

b) the normal level or non-metastatic level of expression of the marker in a control sample

30

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wherein a significant difference between the level of expression in the patient sample and the normal level or non-metastatic level is an indication that the ovarian cancer has metastasized.

5 58. The method of claim 57, wherein the marker corresponds to a secreted protein.

 59. The method of claim 57, wherein the marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

10

 60. The method of claim 57, wherein the sample comprises cells obtained from the patient.

 61. The method of claim 60, wherein the patient sample is an ovarian tissue
15 sample.

 62. A method for assessing the aggressiveness or indolence of ovarian cancer comprising comparing:

- 20 a) the level of expression of a marker in a sample, wherein at least one marker is selected from the markers of Tables 1-2, and
- b) the normal level of expression of the marker in a control sample, wherein a significant difference between the level of expression in the sample and the normal level is an indication that the cancer is aggressive or indolent.

25 63. The method of claim 62, wherein the marker corresponds to a secreted protein.

 64. The method of claim 62, wherein marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

30

 65. The method of claim 62, wherein the sample comprises cells obtained from the patient.

66. The method of claim 65, wherein the patient sample is an ovarian tissue sample.

TABLE 1

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Sequence 1

ACGCGTCCGGGAGACACAAAGCAGGAAGCCTCCGGGAGACCAGAGCTGGGTGCAGACATA
CACACACACATACACACAGACACACAGAGTCACACACACTCACACACACTCTCTCTCTCT
CTCCCTCTGTCTTTCTCTCTCTCTCTCTCTCTGTCTTTCCTCCTGGACAGATCCACA
GTTATACACAGAAACAAACACACACGCAGTAGAGAAGTGATTACAAACACTTAAAGAC
ATAAATCACAGGTGCAAAGCCATACCTGGGCTCAAAAACCTCCAAGAGAACGCAGCCTCA
GACCCACCCAGGGGCCAGGGGCCAGGCTGTTTTCGAGAGACCAGCCAGGCGGGACCCAGGC
TTGCACGGGCAGGTACACGACATTCTTGGGCATACGCAGCCCGCCTGGCCGGAGCTGTGG
GAGTCCTCAGCCCCAAGACCCAGCAGGCGTCTGAGGCCTGCCCACTAAGGAGGAGGAGTC
ATTGCTGCCATCATTTATCATNCCCTCCCCAGCCACAGTCTGAGGAGCCCNTGTNCACCC
TTCCCA

Sequence 2

CGTCCGGAAGCTGGTGGGAATGCTAAGTTCGAGAGTTCCTGGAGTCTCAGGAGGATTA
CGATCCTTGCTGGTCCTTGACAGGAGAAGTACAACAGCAGAGCCGCGGCCCTCTTTAGGGA
TAAGGTGGTCGCTCTGGCCGAAGGCAGAGAGTGGTCTTTGGAGTCATCACCTGCCAGAA
CTGGACCCTACCTNAGCCCANGACGCTGCCGTCCATGGTGCACCGAGTCTCTGGCCAGCC
GCAGAGTGTGACCGCCTCCTNGGACAAGGCTTTTGAAGACTGGCTGAATGATGACCTCGG
CTCCTATCAAGGGGGCCAGGGGAATCGCTACGTGGGGTTTGGGAACACGCCACCGCCTCA
NAAGAAAGAAGATGACTTTCTCAACAACGCCATGTCCTCCCTGTACTCGGGCTGGA

Sequence 3

NCCACGCGTCCGGGACGCGGGCGCCAGGTGCACAGCCCCAGTCCGCTGCGGGCGGGCGTC
GACATCTGCCGCGTGAGCGCGAGCTGGAGCTACACCGCTTTCGTGACCCGTGGAGGCCGC
TTGGAGCTGTGCGGCTCAGCCAGCGGCGCGGGCGGGCCGCTGCAAGGACGCGTGGGCCTCG
GAGGGGCTCCTCGCGGTGCTGCGCGCCGGGCCGGGGCCGGAGGCGTTACTGCAGGTCTGG
GCGGCCGAATCGGCGCTGCGTGGGGAGCCATTGTGGGCCCCAGAATGGTGGTGCCCCGAGGC
CGAAGGGGGAAGGACGATCCGGCCGGGTGAAGGCCCAAGCTTGGGGAGGCTACCCCTTGC
TTGCCCTGCGGCCCGCTGCCCTACGTGAGCCCCGCGGGCCGCCCTTCTACCGGCCCTT
TGGCTTCCGGGAGCTTGCGGGGCAACGCCAATTGGGAGCTGGGGCCGCCAGCAACCCCG
TTGCTTGTGGACGCTGTGCCAAAGGTGGTTTCTGGGGGGCGGGG

Sequence 4

AGTCNCCACGCGTCCGGGAATTGANGCCGCGGGGCGGGCGGGCGGGCGGGCTGGGCGGGC
GCCGGGACCCAGCGGGCCAGGTGGGGACGGCGCGGAGCGGGTGCGGGAGATGCCGTGCGG
GACTGGGGCCACCTGAGCCGCCCGCCTCGTCCCCGCCTTCTGTGGGAAGGATGTGCGCGC
GGATGGCCGGTGCACAACAGCGGCCCTCGGGGGCCCTACGGCCCCCTGGCTCTGCCTCC
TGGTGGCCCTCGCCCTGGGACCGTCTGTGAGAGTGGACTGTGGCCAGGCTCCCTGGACCC
TGTCTACCTGCCGGCAGCCCTGGAGCTCCTAGACGCCCTGAACACT

Sequence 5

TCNCCACGCGTCCGACTGTATGTATTCTGGATACAGGGGATACTGGGCTCGCTATGTGTG
TGGAGCCATCCCTTCCCTGCCCCAGCCCCACCTCCCTCTCAAACCTCTCTGGCTCTTTC
TGAGCTTCCCTTCTGCTCCCCAGCTTGCCAGTGCTCAGTGCCCCACTTGGCTCTTTTG
CTACTTCGGGTGAGGTGGAGCCTCTTGGGAATGTGAAGTGCTTACAGAAAGATTGCACT
TCAAGAGGAGAGGCTGCAGGGAGCCATCCTAAACCCAGAGGCCTGGAGCTTACCCGTGTC
ACTTTACTTTTGTACACAAGGGGGTCTCCTTAGTGCCCTCGAGAAGGGATTCTTGGGCC
TGAGCTTCTACTCCTGAGGCCACCTTCTGTGCAAGCCCCAAGCTCCCTCAACTCTAGGCT
TGGAGTCCTCAGTGGGGAAAAGCCCTGNTTTGGGG

Sequence 6

CGTCCGCGTCCCTCGCTGCGGAAAGTTGGGGCAACCTGTTGCTAGTCTGGTGGTTGGTGAC
AGCGAGGCTTCCGCGCTCGCTGCTGGTGAGCAGCCCCGGCGTGCCCCGCGGGCTGGAAGA
GGCGGCGGCGTGATGCGGCCCGTGACGCGCCCCGCGCGGGCCCGGAGAACCTGGCCTC
CCTGGAGCGCGAGCGCGCCCGGGCGCACTGGCGGGCCCGCAGGAAGCTGCTGGAGATCCA

TABLE 1

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GAGCCTGCTCGACGCCATCAAGAGTGAGGTGGAGGCAGAGGAGCGGGGCGCCCGGGCCCC
AGCACCCCGCCCCGCGTGCGGAGGCTGAGGAGNCGGGTGGCTCGGCTGTGCGCCGAAGC
AGAGAGGAAGGCTGCGGAAGCGGCGCGGATGGGGCAGGCGGGATCGTGGGAGCTGCACNN
ACCGGATCGCCGGCTTGCGAGTGCTGCTGAGCCGGCGAGGCCCNCGGGTCTGGAAGCGGA
ANCGCGCGGG

Sequence 7

NTTCGGGAGTCGACCACGCGTCCGCGCGCTGGAGGAGTGGAGCAAGCACCCGCGCCGGCC
CTGGGGGCTGACAGTCGGCAAAGTTTGGCCCGAAGAGGAAGTGGTCTCAAACCCCGGCAG
GTGGCGACCAGGCCAGACCAGGGGCGCTCGCTGCCTGCGGGCGGGCTGTAGGCGAGGGCG
CGCCCCAGTGCCGAGACCCGGGGCTTCAGGAGCCGGCCCCGGGAGAGAAGAGTGCGGCGG
CGGACGGAGAAAACTCCAAAGTTGGCGAAAGGCACCGCCCCCTACTCCCGGGCTTGCC
GCCGCTCCCCGCCCCAGCCCTGGCATCCAGAGTACGGGTGAGCCCCGGGCCATGGAGC
CCCCCTGGGGAAGGCGGCACCAAGGGAGCCTTGGGCGCCNCGGGCTTCGGCCGCGACCCC
ATTTGGGGTAGACCACAAGAAAGCTTCGGGACCTTTCGGCACCTTGGACAGCCAAGAA
TGGCTGNTGGGCACCCTTCTCT

Sequence 8

CCCCGCGTCCGGAGCACGCAAAGGGAATAAATTGTAATTAGGTGGTGGGTGGCTAAAAAT
GACAATGCAAAGGTGTTGGATTAAAAAAAATCTGGTAGTAGAGGGAAATTATGGAGGA
TTTTTAAAAAGGTTAATGATAATATCCATCTACTTATGTAACTTTTTTGGAGATACCTG
ATAATAGTGTAGAGTGCATTGGAGAGGAAAAGTAGGAGTTGTAAAGACCATTTTGGATAA
ACTTTGAAGCAAGGGATAATGGCCTCAACCAAGGTAGTGGTGTGAAGATTGTTTACATA
AATAAGCAGATACAAATAGAAGGGATTTTTCAAGTGGCATTGTAACGCACTTTTCAAAG
GTTATTTGCCAAAAATCAAATTAACGGTATCTTCAAAAATCATGTTTGATGGATGTATCA
TCAAGGGCTTTCTTAAATTTTGTGAAAGCCAAGGAA

Sequence 9

CGCCTTCCCGGGAAGTTTGGAGGGCCCCGNAGGGGAAGCCCCCGCGNCTTCNNGGGGGCCN
GNCGGGCTTGGAAGGCAANCCCCACCCCAAGTTTCCCCGCCNANGGANTNCAATGAANCT
TGACCGGGGCCCCCGGAACCCNCGCTNGNCTTNTTNGGGGGTGGTTCCTTGGGTCCG
GTGGGGGGGAACCCCAAGTGCTTTTCAAGGCCCGCGCCGGGCGCCCGGGGCCCCGGAAAGG
GCCTTTCAAGTCTTNCCTTTCCCCGNTTGAAGAAGGNAAGGCGCGGAANGGAAAC
CNGGGNAAAACCCGNCNGGNNGGGCGGCCTTCNNCCGCCNNGGCGCCCCCTTGCCNNGGG
GGGGNAAAGGGGNCNCAAGTTTTCCNNGGGGCCCCCGGGGCCCCGGCNGNCCCTTTNAAN
TCAAGGGGGCGGGNCCGNCCTTCCCCAANNCGGCCAAGTTCCTTCAAAGGGGCCCCC
CGGNTTTTGGGCCCCGNCNCGGNCNNAACCTTGGGGAAGGAAAAAATCAAAGGTTTT
GTTGGCCCCGTTTTCCGGGTNGGAATTGCCCCCNAAAATTTGNAAGCCGGGGGGGGGNN
NCCTTGGGGGCCCTTCTTTGCCCCNTTTAAAGGGAANGGGCNAACCTTTNCCCAAC
CGNCCAANNCCCCGTNAAAAANGGCCGCTTNNTTTGNCCGGGGCCCCNAANAA
GGGCCTTTTCGNTTTTTTCGGGTTTTTCCCCCGGGCGGGCGGGCGGNNCNTTTTTT
TTTTTGCTTTTAAAGGGGG

Sequence 10

NCGCGTCCGCGCATTGTGGCCAAGTGCCATGAGGAGCAGCTGGATCATTCTGTCCAGTC
ATATATTAAGTTCGTGTTCAAGACCAGGGCATGCAAGGAGAGGACTGTACATGAGGAACT
GNCTAAAAATGTGACTGGTCTTTTGAATCAAATGACTCAACAACAGTAAAGCATGTCTT
AAAGCATTCTGGTCTTCTTTGCAATTATCCTAAAATCGATGGCACAGCACTTGATTGA
CACAAATAAAATCCAGCTCCCCGGCCTCAGAGATTTCTGAATCTTACCAAATGAATT
GGACAATCTTGNCATGGTCCTATCCGACCATGTGATTTGGGAAATACAAGGATGCACTTG
AAGAAACANGAAGGGCAAACCACAGCGTTGCCAGATTTCTCAAGCGCTGCTTTAC

Sequence 11

CGCCNCGCGTCCGGCTTCTAGAGAGCACAGTCCCTTAAAGCACCTCTATTGCTACAA
TTAAAAGTCTAGCAGATTGTAACCTTAGTTACACAAGTTCTAGAGATGCTTTTGGCTATG
CTACACTGAAAAGACTACAGCAACAAAGAATGCATCCATCCTTATCTCACTCTGAAGCTT

TABLE 1

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TGGCATCTCCAGCAAAAAGATGTGCTATTTACTGATACCATCACCATGAAGGCCAACAGTT
TTGAGTCCAGATTAACACCAAGCAGGTTTCATGAAAGCCTTAAGTTATGCATCATTAGATA
AAGAAGATTTATTGAGTCCTATTAATCAAAATACCCTGCAACCGATCTTCCTCAGTGCGG
GCCATGGNGTCCAGTGCCACATNGGGGGGGTCAGAATGATTACATTGGGCTTGCTCTCCC
GGNGGATATAAATGATATATTTTCANGGTAAGGGTATTTCTTATTTTTAGACAAAAAACAT
CCCNCAATGATGATCCAGNGCCAGAGCATTTGCCCTGAATGCAGGAGGGCTTTCATNTG
GNACTGGGNGGGCTTTGNAAAAATTTTTT

Sequence 12

TTCGGGAGTCGACCACGCGTCCGCCAAGTCCTGCGATGATGGA CTCAACACCTTCCGCGA
CGAGGGCCGGGTTCTGCGGCGCTGCCAAACCGCATACCCAGCCTGCGGATGCTCCGGAG
CTTCTTACACGACGGGTCTTGATAGCTGGGGCACCTCTGAAGATGCTGACGCTCCTTC
TAAGCGACACTCAACCTCTGACCTCTCAGATGCGACCTTCAGCGATATCAGGAGAGAAGG
CTGGTTGTATTATAAGCAGATTCTACCAAGAAGGGGAAGGCTGAGGACCGGGATGACAT
GCTGGGCTGGATCAGAGCGATCCGGGAGAACAGCAGGGCCGAGGGCGAGGACCCCCGGCT
GTGCCAACCAAGCTCTTGATCAGCAAGAAGCTTAATGATTATCGCAAAGTGAGCCATAGC
TCTGGGCCCAAAGCTTGATTTCTTCCC

Sequence 13

GTATTAATGTTCTCAGGCATGAAGCAGAATTTTACGGGATCACTCCATTAGTAAGAAGGC
TTCTCTTATGTGAAGAATTGGAGCGTTCTCTTGTTGGCAGTGTCTTTTTTCATGGTTACT
TGCCCCCACCAGGTATTCCTAGTNCGTAAATAAACAACACAGTCAGATCTGCTGATTCT
AGGAATGGTCTAAATTCTACAGAAGGTGAAGCCCGGGGAAATGGTACACAGCCTGTTCTC
TCTGGAACGGGAGAAGAAACTGTTAGGCTAGGATTTCTGTGGATCCACNAAAGGTGCTA
ATAGTAGCTGGCCATCACAACCTGGATTGTAGCTGCATATGCCCATTTTGTGTGTGTTAC
AGAATCAAAGAATNTTNANGATGGCAGCAAGTGNTTACGAGCCCATATTTGGATTGGACT
ATCGAACGAGTAGNTTTAATGCAAAGGTGGATGGAGGGCCACATGGAGACAAAAGACAA
AAATG

Sequence 14

GCCNCGCGTCCGAAAAAATTAAGAGAAGGCCTGGCGGCCGGTCTGAAGTCATCTATAATT
ATGTACAACGCCCTTCATCCAGATGTCATGGGAAAAGGAAGAAGGGAAGAGTCGCCATG
TGGATTTCTAGTGTGTTTGAAGCAAATCCCTCACGAATCTGGTAGCTGCTGGAGATGATG
TCTTGGAGGACCAAGGAGATTAATGCATCACCCACCCCAAGTGGATGAACCTTGACCGGC
TAAATGCCCACTTTCTCAGATGGCTTCTAACGACTTTCAGGATTAGGGCCAGCTGTGGG
TCTACTCCTTGTTGGAGCCCATCTCACTGGGATGCCTGCAGCCAGCCCTCCCTCGTGAT
TTGTCTCACCTTGAGTAGGAGACATGCTTCTCCCTAACCTTTTCTTTCTGCCATAATT
AACATATGTCCTTTTTCAGTAAGTCCATGCCTCTGGCAGGGGATGAAAGAAGTACTCACTG
GGTAATTAGCTACCATCTTGCAGCACCTGGTAACTTGAAAAATTT

Sequence 15

TCGGGAGTCGACCCCGCGTCCGCCGAGCGGGGCGGCGCGGCTGGCGGGGCCGGCGGCCGG
CTGAAGCGAGAGCGCGACGCGACGCGACCGCGGCTTCCCGAGCTGCGCCTGGCCGNCCAG
CGCCGCGGNCCGCCGAGGCCTGGAGGGGTCCGGGCCGCGCTCCATGGTCGCGGCGTCCT
GAGGCGGGGGACGCGCCCGCGCCCCCGGCCCTCCTNCGCCTCCTCCCGCGGGGCGGGCG
GCCTCCTCCGGCGCCTNCCCGCGCCCGCCCGCGGNTCGCCGCGCCTCCTCCTCCTCCTC
CCTGCGGCTCCCCGGCTTTCGGAGCCCGGGGGCGGCCTGTGGCGCGCGGAGCCCGCGCC
GGACTGCGCCTNTTGGACCTTGAGGGGAAACATGCGTTTGCCNTGGATCGTTTGAAATT
CTGAGTTTGGGATCCCCGNCCGGCCGNCTGGCTTTTTCGCCGCGGGTTTTTCTTTTT
TCCTTTTGCTTTTTTTTCTTCTT

Sequence 16

NGCCCCGCGTCCGTTTTAATTATTTTGTNGAGCCTGCANAGTAANGTTNTTAAAAATA
TAACGTTTCATACGCATTTTAATTAACCTTTGAAAGTTTCATATGCATCAGAAAATTTATGAA
AATTTGAATGAAAAAATTTTCATCTATTTATTTTCTAATTTTAATGGCAAATTTACACT
ATTATGGCTGATAATTCTGTGAACCTTACCTTCTGTTGACTGATTCTTTTCCCTTAATC

TABLE 1

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CCAGCTTTAAGGAGATAGGTGAAGTTATTGTACAAAGTTAAGTGATACCATAAAGTATAT
ATTATAAAGTCATACATGGCTTTTGGACAGTNTTATATTTTCAGTTGCAGTGCTGCATTCC
ATTAAATTTCAATAAATGCTAGGGAAAAATGTGTTTGATAAAATTTTNTGCAGTGAGAAAT
GACAGACTGAGTGCCTGACAATTTAAGCCACATATGAAAGTATGCAAGTAAAGANTTCAG
GTCCTTAATGTCATCTATATCATGGTATAAAAG

Sequence 17

CCACGCGTCCGGACGAGACGAGCCACTAGTGTCCCCGAGCGGGCCCAACCCCGGACT
ACACCTTCCCGTCGGGCTCGGGCGCTCACTTTCCGCAGGTGCCCGGGGGCGCGGTCCGAG
TGGCTGGCGGCGGGCCGGCTCGGGCCCCNTCCGCCGGGCTCGCCGGGCCACGACCGCTGA
GCGGCAGCCACTGTTGGATCGGGCCCCGGGGCGCGNGGCCAGGGCCAGACCCAAACCGT
GGCGGCGCAGGCCAGGCTCTGGCCGTTCCANGCCGNGGCGGCAGTCCACGCCGATCAGGC
CCACCGNGAGCGGAACGAG

Sequence 18

GGGAGTCGACCNCGCGTCCGGGCGGTGGGTGTCCGCTTCTCTCTGCTCTTCGACTGCACC
GCACTCGCGCGTGACCCTGACTCCCCCTAGTCAGCTCAGCGGTGCTGCCATGGCGTGCGG
GCGGCGCGAAGCCGGCGTCCGGGCTCGCGGCGTGTTGGCTCTGGCGTTGCTCGCCCTGGC
CCTGTGCGTGCCCCGGGGCCCCGGGGCCGGGCTCTCGAGTGGTTCTCGGCCGTGGTAAACAT
CGAGTACGTGGACCCGACACCAACCTGACGGTGTGGAGCGTCTCGGAGAGTGGCCGCTT
CGGCGACAGCTCGCCCAAGGAGGGCGCGCATGGCTTGGTGGGGCGTCCCGTGGGCGCCCCG
GCGGAGACCTCGAGGGCTGCGCGCCCCGACACGCGCTTTTTCTGTCGCCGAGCCCCGCGGC
CGAGGGGGCCCGCGCCCTTGGGTGCGCCCTGGTGGCTCGTGGGGGCTTGACCTTTAAGGAC
AAGGTGCTTGTGGCGGGCGCCGAGG

Sequence 19

NATGTNGNNCNAAAAAGGCCNCGNCTTANAGGCCAGGAAACNCGTAAAAAGGGCNCGCGTT
GCTGTGCGTCTTTTCCATAGGCTCGCGNCCCCCTGACCNAGTCATCATAAAAATCCGA
CNGCTCAAGTCATGAGGTTGGCCGAAAACCTCCGACAGGGACTTNTAANAGNATACCCANG
GGCGNTTCCCCCTGGGAAGGCTCCCTTCGTGGCGCNTCTCNNTGTTTCCAGACCCCTGC
CCCGCTTTACNCGGNATTACCTNCTCCCCGCCNTTTTCTTCCCTTTCGNGGAAAGCGGT
NGGGCGCCTTCTCNTCAATTAGGCTTACCAGCCTGNTAANGGTATTCTCAAGTTNCGGNT
GTANGGGTGCCGTTTTCGCTTCAAAGNCTGGGGCCTTNTGTGCCACCGGAAACCCCCC

Sequence 20

TTCGGGAGTCGACCNCGCGTCCGCCTGGAGCCGCCAGAGTTTCCGCACCCGGGAGGGAGA
TGCGGCCGGGGCTCAGGCTCCTTGCAATTGTAATTTAGATTGAGAAGTGGTTTATCCTT
TGACTGGAAAAGAAAAGTAGCTGCAGTATCCCCAGCACTTGCTGAGAGCATGCOGTAT
GCCAGGCTGTGAGGCTCGAGAGACAAGCAGTGGAAGAGTTGCGGCCTGTTTCATCTCTGG
ATTGTAAATCTGAGCCTCCTTCTGGCCCTGGAAGGGGACAGCATCACGATGGAATGATT
CCTAACCAGCATAATGCTGGAGCCGGGAGCCACCAACCTGCAGTTTTGAGAATGGCCGTG
TTGGACACTGATTTGGATCACATTCTCCATCTTCTGTTCTTCCCTCCATTCTGGGCTAAG
TTAGTAGTGGGATCGGTTGCCATTGTGTGTTTTGCACGCAGCTATGATGGAGACTTTGTC
TTTGATGACTCAGAAGCTATTGTAAACAATAAGG

Sequence 21

CGACCACGCGTCCGGCAGCCGCGGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGGACCC
AGCGGGCCAGGTGGGGACGGCGCGGAGCGGGTGCGGGAGATGCCGTGCGGGACTGGGGCC
ACCTGAGCCGCCCGCCTCGTCCCCGCCTTCTGTGGGAAGGATGTGCGCGCGGATGGCCGG
TCGCACAACAGCGGCCCTCGGGGGCCCTACGGCCCTGGCTCTGCCTCCTGGTGGCCCT
CGCCCTGGACGTCGTGAGAGTGGACTGTGGCCAGGCTCCCTGGACCCTGTCTACCTGCC
GGCAGCCCTGGAGCTCCTAGACGCCCTGAACACTTCCGTGTGCAGCAGGTGGGGCCACTA
CCCACCTGCCAACTCCTCTCTGAGCTCCCGATCTGAGACCTTTCTGCTCCTACAGCCCTG
GCCAAGGCCAGCCACTTCTCGGGCCTTCTACCCAA

Sequence 22

TABLE 1
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CGCGTCCGCCCGGTGCCTCCGCCCATGGAACGCGCGGAGTGGCGCCGCCGCGGCTACGCC
CCGCTGCTCTATCTGCAGTCACACTGCGACGTGCCAGCGGACCGGGACCGCTACGTGCGC
GAGCTCATGCGCCACATCCCGGTAGACTCCTACGGGAAATGCCTGCAGAATCGGGAGCTG
CCTACCGCGCGGCTACAGGACACAGCCACGGCCACCACCGAGGATCCAGAGCTCTTGGCT
TTCTTGTCGCCGCTATAAGTTCCACTTGGCCCTGGAAAATGCCATCTGTAACGACTACATG
ACAGAAAACTGTGGCGTCCCATGCACCTGGGCCGCTGTGCCCGTGTACCGCGGTTCTCC
CTCTGTGAGGGACTGGATGCCGAACAATCACTCCGTCATCCTGATTGATGATTTTGAGTC
TCCTCAGAAGCTGGCAGAGTTTATTGACTTTCTGGACAAGAATGATGAGGAGTATATGAA
ATACCTGGCATAACAAGCAACCT

Sequence 23

CGCGTCCGGCTGGGCGAATNAGGGATTCCGGTTCACAATGGATGCTGATAAAGAGAAAGA
TTTGAGAAATTTCTTAAAAATGTGGATGAAATCTCCAATTTAATTCAGGAGATGAATTC
TGATGACCCAGTTGTGCAACAGAAAGCTGTCTGGAGACAGAAAAGAGACTACTGCTTAT
GGAGGAAGACCAGGAGGAGGATGAATGCAGGACCACCTTGAACAAGACTATGATCAGTCC
TCCACAACTGCTCTGAAGAGTGCAGAAGAAATAAACTCAGAGGCCTTCTTGGCATCTGT
GGAGAAGGATGCAAAGGAACGAGCCAAGAGAAGAAGGGAAAACAAAGTCTTGGCGGATGC
CCTAAAAGAAAAAGGGAATGAAGCATTGCTGAAGGCAATTATGAAACAGCTATCCTGCG
CTACAGTGAGGGGTTTGGAGAAGCTGAAGGACATGAAAGTGCTGTACACCAACCGAGCCC
AGGCTTATATGAAACTTGAGGA

Sequence 24

GGGAGTCGACCNCGCGTCCGCTCCCTCTGAGTTGCGCTGGGCTTGGCTGCTGCACCATGA
CCCTGGAGGCGATCCGCTACTCGCGGGGCTCCCTGCAGATCCTAGACCAGCTGCTGCTGC
CCAAGCAGAGCCGCTACGAGGCGGTGGGCTCGGTGCACCAGGCCTGGGAGGCCATCCGCG
CCATGAAGGTGCGGGGCGCCCCGGCCATAGCCCTGGTGGGCTGTCTCAGCCTCGCCGTGG
AGCTGCAGGCGGGCGCCGGGGGACCGGGACTCGCCGCGCTCGTGGCCTTCGTGCGCGACA
AGCTGAGCTTCCTCGTCACCGCCCGGCCACCGCTGTCAACATGGCCCGCGCCGCCCGCG
ACCTGGCTTGATGTTGCAGCCCGGGAGGCCGAACGGGAGGGGCGCTACGGAAGAGGCCGG
TCCGGGAGAGAGTGATCTGCTGCACCGAGGACATGCTGGAGAAAGACCTCAGAGACAACC
GAAGCATTG

Sequence 25

GGAGTCGACCNCGCGTCCGGGATAACGAAGCTGCTACCATGATGATGGCTGATCTCATGT
TCAGAAAAAAGACTATGAACAAGCAGTGTTTCATTTACAGCAGCTTTTAGAACGTAAGC
CAGACTCCTCGAGTTCAGGGATCACACCATATTCCCAATATCAGACAAAATGCCACACAC
ATGGATGTGGCAACATAGATGTTTATTGGTTGAATGGATCAGTGAATGACTGTAACACAC
CAAGTCAATTAATAACACAGCAGGAGAATCGCTTGAACCTGGGAGGTGGAGGTTGCCGTG
AGCCAAGATCACACCACTGCACTCCAGCCTCGGTGACAGAGTGAGACTTGGTCTCAAAA
CAACCACAAAATTTTAAATAATTATGACATTATCTCGTTTGATTGATCTCCTAAGAAG
ATGTGGAAAACCTCGA

Sequence 26

ACCGTCCGGGGCCATCCAGGAGAGCCTCCTACCAGCACAGAAGGCCTGTGCCCCAGCGCC
CTGAGCGAGACAAGCCGTTTTGATAATGACTTGACGCTAGCCATGGAGCTCTCTGCCAAA
GAGCTGGAGGAATGGGAGCTCCGGCTCCAGGAGGAAGAGGCTGAGCTCCAGCAAGTCTTA
CAGCTGTCACTCACTGACAAATAGACCTTTCAGCCTGTGAGCCTCTGCACAAAGCAGAGG
CTGTGGGCTGTACAGATGCTGTGTCAACCAGGGCCCTAGGGCTAAGGGCCTGCACCTTG
CGTGATGCAGCAGGCAACAACCTGCCCTTCTTTATGCAGAGGTGCAGAACCAGGGACTC
CTGGGCCCATCCAGGCTGCTTCCTTGGGGTGG

Sequence 27

NCCNCGCGTCCGGCCGGCGATGCCGCGCCCCGGGGCCGGGCTGTAGCGGGGCGCGGCTG
GACGTGTGCGCCGGGCGAGGCGGGACATGGAGGTGGTGGACGAGACGGAGGCGCTGCAGCG
CTTCTTCGAAGGCCACGACATCAACGGTGCCCTGGAGCCCTCCAACATAGACACCAGCAT
CCTGGAGGAGTACATCAGCAAGGAGGATGCCTCCGACCTCACACTGCCGGAATCTCCCCC

TABLE 1

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AGACTCGGGCTCCGAGGCCTACTCCCCCAGCAGGTGAATGAGCCCCACCTNCTGCGCAC
GATAACCCCTGAGACACTGTGCCACGTGGGGAGTGCCCTTC

Sequence 28

CGCGTCCGCNAGGGAGGGCCGAGCGAGGCGCAGGCAACCGGGCAGCAGGCATGATGCCCT
CGCCTAGTGACTCCAGCCGCTCGCTGACCAGCCGGCCCAGCACCAGGGGCCTTACCCACC
TNCGCCTNCACCGACCCTGGCTGCAGGCCCTGCTTACGCTGGGGCTGGTCCAAGTGCTCC
TGGGCATACTGGTGGTCACCTTCAGCATGGTGGCCTCTCCGTACCACCACCGAGAGCA
TNAAGAGGTCCTGCCCCGTCTTGGG

Sequence 29

ACGCGTCCGATTTTAGTNGCAAGGAGTCCATGTGTTCAACTCCAGCATTTCTGTGTCTC
CAGAGACACCGTATGTGAAAACAGCGCTGCGCCATCCTCCGTTAGCCACCTGAGCCCC
CGCTGAGCAGCCCAGCCAGTCAGCACAAAGGAGGACGTGAACCACGAAGCTGCCCTGAGA
CGCTCACTCACGCTGTGGGGATGTCAGAGAGCCCCATCGGACCCAAATCCACGATGCTCC
GGGCTGATGCGTCTCGACGCCCTCCTTTCAGCAGGCTTTTGCTTCTTCTGACCATTTC
CCAGCAACGGCCCTGGGCAGAGGAGAGAGAGCTCCTTCTTCTGCAGAACGCCAGTGGGTG
GAGAGCAGNCCCAAGCCCATGGGTTTCCCTGCTGG

Sequence 30

CCGGTTNCTGTNNGTTNATTGATTTAAAATAGAATATCAATTGAATTTAGAAAATTCTC
AAAAGCCAGTTTAATGCTGTTTCATCTTTTAAGGCCAAAAAAGTTTAATCCAGAGGCAGT
CTTTCATTCTGCACTAATTTATAATTTAGATCAAAGAACTAATTATATATCTCAAATTTA
ATAATAAAAAGGTATAGTAATGAGAAATTAATTTATGGTAAATTAATACTCAGAATGT
TAAAGTAACCTGGAAATTCCTAATCTAAGTTAAGTATCTTTTTATTTCTTACTTGTCTCTG
TTTGATTTATTAAGGGAAAAGAAAATTTAAGGAGTTGCCAGTATTTCTTTGTCTATTGA
AAGTGGAATGTTTATTCACCCCTTATTTATATACTTAAAAGACATTGTATTGGCCTGGTCT
CGAACTCCTGACCTCAAAGGTGGATCCACCCACCTCGGCTTCCCAAAGTGCTGGGATTA

Sequence 31

GCCGGTGATTTTGAACAATTCTGAAATATTTAGGTAAGATTAATAACATCCAATTACAA
ATATATGTTTCAATATTTTATACGTATGTCTACTTTGAAAGTTAAACCAATAGTATAGAA
AGCCTAAGAATGAACACTGATTGGACATACTCACAGAAATTAAGGGAAAAACACATATTG
TAAAATTCCTGTCAATGTTTGAGTAGAATACAGAAGTACATAGCAGTCTTCAATTTTTAA
ACACAATTATGGGCTTATAACTGGACGTGACATGCATCATTTATTAGAACAATATTATTT
ATTTATACTAAGTAAGGATATAAGATCACAGAAGCTTAGTGTTATAACGGAGACTTCACA
GACATTCATACTAATGTTTTCTAAGGCCAAATAAGGGGCATAAACCAGAACTCATGGGTC
AGTGCCAGAGGTAAGTATAAAAAGGTTATGTATGAAAGACATTTATTTATAGGAGAATTT
CTGAGGGATTCTATGCCTTTTCAACTTA

Sequence 32

NCGTCCGGGAAACTGGTTCNGATGGTGTCTGCCAGGAGCGCCTGACACGCACCTTCACA
CGCAGCAGCCACACCTACACCCGCACGGAGCGCACGGAGATCAGCAAGACGCGGGGCGGG
GAGACAAAGCGCGAGGTGCGGGTGAGGAGTCCACCCAGGTGCGCGGGGACCCCTTCCCT
GCTGTGTTTGGGACTTCCTGGGCCGGGAGCGCCTGGGATCCTTCGGCAGCATCACCCGG
CAGCAGGAGGGTGAGGCCAGCTCTCAGGACATGACTGCACAGGTGACCAGCCCATCGGGC
AAGGTGGAAGCCGCAGAGATCGTNGAGGGCGAGGACAGCGCCTACAGCGTGCGCTTTGTG
CCCCAGGAAATGGGGCCCCATACGGTCGCTGTCAAGTACCGTGCCNCGACGTGCCCGGC
AGCCCTTTTCAGTTTACTGTGGGGCCGCTNNGTNGAAAGGTGGTGCCACAAGGTGCGGG
CCCGGAGGCAC

Sequence 33

CCGCGTCCGCAGGAAATTGTTAAAAATAATTTGGGGGTGTTTATTGGGGAAGGAAACAGG
GCCTTGACAGTGGAGGACTTGAAGACATGTAATTTAAGATATAGAGTATGATTGTTGGA
AATAAGCATGGAGATCCAGAAGGAATCTTAAGAGTTTTTCTATGCAAGTGAAGATGGAA
GAAAATATGTATTTACAAAAGATAAATTACAAGTACCTTATTTGCTTTGCAAAATAACT
TATCATGTTCTTCCACTATTTTTATTATATTTTAATTTAATGAACTTATATAACATTT

TABLE 1

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ACACTAAATTTTAAATACATGGCTCAAGACAAAAAATGGGGAAAAATATTTTTAAAAA
TCACCCCAAACTCCTGGTACTCAGACATAACCACTATTCAAACCTGGCAGAGTAATATTT
TCCTGTCTGCATGTGTGCCACNATGTGTGCATGCATACCACAAAGTAGATGTTTTACTAT
ATCTCCTGGGTATTATCTGCTTTTTCCC

Sequence 34

ACGCGTCCGGGACAAGAGAAACATAAGCNGGAAAAAAGGAGGAGGAATAAACACACGCCT
GTCCATAATAAACTCGCTCTTGAAGACTCAGCGGCAGCCCTGCACCGGAGACTGACGAC
TTGCGCGGCTGTGACCTCCGCCCTGCAGCGGACCCTCGACTGCCCTGCACTGCGGCTCTG
GAGGCCCGACTCAGTGCATGGGAAAGAAATCCTCACTATCAGAAAACAGAGGGGCAATC
TGCTGCTCTCCCTTTCCGGCCAAACACGTACCCATCAACCGGATACCTACCAAGAGGCT
TTCAGAGGAGGCGCCCAAGGTCTCCAGGCCCGCCCTCCCCAATCACGCTCCGCTCAGC
CCCCTCAACTTTTGGCCTCCGGGAAGTTCGAGCGTNTCTCACGCTTGGCAGGAAGTTCC
CGCCAAGGCTTTCGGAAAAATCCTTTAAAAAGCAACGCTTGCGCTGGGCGGGGCTTTGGTG

Sequence 35

CCCCGCGTCCGGTAGATTGCTTGTGGCTGGCAGTGAAGATGGTGGAGTTCAACTTTTTGA
TATAAGTGGGAGGGCTCCCCTCAGGCAGTTTGAAGGCCATACAAAGTAAGAGACAGTTGG
TTTCTGTGTGTTCTGGTTTTATTTGTTGTAAGCTCTTTTTCTCTGGACTTTGGTTAA
AAAGATAGAGATCAGTTTTATGGAGATTATTTGCCTATAGGTAATATTTCTGATTGT
TCTAAGAGTGCTTAACTTGGGTTCCGTGGTCCAGTTTCATGGGGCTTATGAATTCCTAG
AATTGTATGTGATATTTAGGAAATACACGTTTATCTAGGGAGCTACTCTGTAGCTTTTG
GTTAACTTTAGTGGGGTCTGTGGCCAGCTGAGATTATGAATTACTGACCTGAAGACAAC
CTTACAGCTGGTAATGACAGCTCTATAGGCCTGTACTGTCTTAGAGGCTCTTATGTTGAA
GTCAAGTANGAAGGTGGATTTTCTTCTGAATTATAGTGTTTTGCCCTTAATAA

Sequence 36

CNCGCGTCCGGACGCGTGGGGGCGAGGGCCGCTGGGGCCGCGAAGTGGGGCGGCCGGG
TGGGCTACGAGCCGGTCTGGGCTGAGGGGCGCGGCTTCGCGGTGGACCCAGCCCGGCA
ACGGGAAGGCGAGCTCTCCTCCACCGTCCAAAGTAACTTTGCCGCTCCTTCGCGGGCGC
TCCCAGTCTCGCCGCGCGGGGCCGCGCAGTCCGCGAAGAGCCGTCCTGCGTCAGGG
CCTCCTTCCCTGCCCGGGCGCGGGGCCACTGCGCCATGGACGCCACAGCACTGGAGCGGG
ACGCTGTGCAGTTCGCCCCTGTGGCGGTTACGCGCGACCACGAAGGCCGCTACTCCGAGG
CGGTGTTTTATTACAAGGAAGCTGCACAAGCCTTAATTTATGCTGAGATGGCAGGATCAA
GCCTAGAAAATATTCAAGAAAAA

Sequence 37

CGTCCGCGGACGCGTGGGCCGCCGCCGCCGCCGCCGCGATGTGACCTTCAGGGCCG
CCAGGACGGGATGACCNAGGAGCCTCCGCCCGCGGNGCCGNGGCTCGCCTCGGCCTCCC
GGGCGCTCTGACCGCGGTTACCGGCCGCCATGGCCCCCTTCTCTNCGCCGGGNC
ACGCTCGACCCTGCGCNCGTATCGCCAGCAAGTCTGCTGCTGCATGCTGCNTGGCTCGC
GAGNNGTTGGCGCGCNTTGCNCTGNNGCCTGTTTGACGAGCNGCCGCCGAGGCCCACTG
CANGNTTANCTCGACGGTCTCCNAAGNCANACCGCNCNCCGCGNCCCTTTCCAAGNNTNT
TTCNCGAGGGGANGGGCNAAANGGCCAGGGNCCCCACNCNTGGGGAAGAAGGGNGGAG
TTNGNCNGATGNGNATGAGNAANCCTGTAGNCAAGANCCCGTCCCNAAGNGGNAGNGNC
AGCCNNGGGGAAGGGTTGGTTTTCNANGNTAAACCGNAACCCCCCGGAAGTNAACCGG
NGATTTTAATTTATTTTACCCNCANANGNAAATAACCTTTNAANAACCATGGGNCATT
NNAAANCAAAAGNTAAATTNNGGGGNAACCTTAACCGNTAAACCANCCCCAAA

Sequence 38

CNCGCGTCCGGCGGGTCCCGCCGGCGGGTACCTGGGCACTGCGCCCCATCTGGACTGAAA
TGGGGACACCCCTTCGGGGGTCCCAGGCTCCTGGCCGTATTGTTCTCCTTCTCCTCGTGA
TAACTCCGCACTGGAGGTGGATTCCGTCCAAGACGCCAACGTGGCTCCGCGTAGCAATC
AGCGCTGCAATCCTGGCGGTTACCTCAGCGGCGGCGTCTCTCTGCGCCTCACACTCGC
AGCCCGCGGCCCTCCCCAAGTTAGGGCGTTTACAAAAGAACTACTCCAGACGCGCTGCA

TABLE 1
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AAGGGAGGCGCATGTGCCCCGAAAGCTGGCGATCAGACGGGGGGGGGCATTCTGCATGTGT
GATGTTTCTGGGGGCGGTGGGGAGTGTGTGTCGGGGTCGGGGGGCGGG

Sequence 39

NTGGTCTTTCTTCTTAAGAAGGAGATGGAGCCAATTTCTCACAGCTCGTGCCTCAGTACT
GAGGGTATGGAGGAAAAGGCAGTCAGTCAGTGTCTAAAAATGACGCACGCAAGAGACGCT
CGGGGAAGATGTAGCTGGACCTCTGAGATTTACTTTTCTCAAGGTGGACAAGCTGTAGCC
ATCGGGCAATTTAAAGATCGAATTACAGGGTCCAACGATCCAGGTAATGCATCTATCACT
ATCTCGCATATGCAGCCAGCAGACAGTGGAAATTTACATCTGCGATGTTAACAACCCCCCA
GACTTTCTCGGCCAAAACCAAGGCATCCTCAACGTCAGTGTGTTAGTGAAACCTTCTAAG
CCCCTTGTAGCGTTCAAGGAAGACCAGAACTGGCCACACTATTTCCCTTTCTGTCTC
TCTGCGCTTGGAACACCTTCCCTGTGTACTACTGGCATAAACTTGAGGGAAGAGACATCG
TGCCAGTGNAAGAAAACCTCAACCCAACCAACCGGGAT

Sequence 40

CACCGNNCGCGCTCCTTCTGCCGCCAGGGCGAGGCTGGCACCCGGCCAGCGCGGGCAGGG
CCACGGGTGCCCGGCTGTTTCCCGGTTGTGGAAGGCGCTCAAGGTGCGCGGCCCGGGGCG
CGCTACTGGGGGCGCCCTCCGCGGTGGGCAAGCGCGCCAGGGATCGGCCTGGGCANGCCG
CGGGGCGCGCAANGCTGCGCTTTCCCTACGCCCCCCTCGCTTCTCCGGCACGGCGGC
AACGGAGATTTCTCTCGGGGAACTACGCGGATCCTTTTCGGGGATCCTCGCCCCGCC
CAATTTCTNCGCCCCCTCCCTTTGCTGGGGCGCCTGGGCTGGCCCGCGCAGGGGA

Sequence 41

CNCGTCCGGTTCCTAACACAGACGAACTCAGCTTCCCTTTGCCATGCCTCTGACTCGAGCC
AGCCTTTCTTTTATCCTCCGTTTTTCTCAGATTCCTCCACACAGTCTTTTCCCAGGTC
TAGATCGCTTCCCTCGCCCCAATCTTCTTGAACCCCTTTTCCAGTGTCCCAAAGCTGT
CCACTCTTACGCCTCTTCCAGAAACACAGGCTACCTCCCCCAATTCCCAGTGCCACTC
TGGATTGTAATATCCCACTCAGGAGCTTCTTTCTTGTAAATTTCCCTCCCCCACCCCCA
CCCTCCCCGGGTGCTGTGTTTTCTTCTATGAAGCAAATATTACTCATCAAATATAGGAAC
AAAGGCCTAAGTCTTTCTGNGCTTTATTTCTTNGGGTGACTGGATCTTAGATCCTATCA
TTTAAGTAGATGATGGTT

Sequence 42

GGTGTGACCCNCGCGTCCGCGCTTCTCNCCTCGGCCCGTGGAGCCGGGGCGTCCGGGCGT
AGCCCTCGCTCGCCTGGGTGAGGGGTGCGCGTGGGGGAGGCAGAAGCCATGGATCCCG
GGCAGCAGCCGCGCCTCAACCGGCCCCCCAGGGCCAAGGGCAGGCCGCTTGCAGCCC
CCGCAGGGGCGAGGGCCCGCGTCCGGACCCGGGCAACCGGCACCCGCGGCGACCCAGGGC
GCGCCGCGAGGCACCCCCCGCGGGCATCAGATCGTGCACGTCCGCGGGGACTCGGAGACC
GACCTGGAGGCGCTTCAACCGCGTCAATGAACCCCAAGACGGCCAACGTGCCCCAGAC
CGTGCCCATGAGGCTCCGGAAGCTGCCCCGACTCCTTCTTCAAGCCGCGGAGCCCAAATC
CCACTCCCGACAGGCCAGTACTGATGCAGGCACTGNAGGAGCCCTGACTCACAAGCATGT
TCGAGGCTCATTCTCTNCAGCTTTCTTGCAGTTGGGAAGC

Sequence 43

GTCGACCACGCGTCCGGGAGCTGCGGCGCCCTCCCTTATCGCCTTGGCAACGACCCAGCC
GCGCCGCGAGGAGAACCAGGAATGGAGGTCGTGGCGTGAGGGGCGCCGAGCGAGGGGAGG
CGCGGGCCACGGGAGTTCCGGGAGTTCCGGCGTTGCCGGCAGTCCGCAGTCTCGGCGG
GAAGGCTGTCCCGGCGCCTCAGGCAGCTCTGCGTGGGCGGGGTGACTTCTCGCGATCC
CCTGCGCGAGGTGAAGGGCAGGGACCTTTGCCGCGCCTTCCACGCGCGTGGCCCCACGG
CGAAGTGGGCTCCATCTTCTTCAAGACTTGTGCTTCCGCGGACAGGGCGCCCGTGGGTT
CTTCCCGGCCCTTCCGTACCGTCTCTTCAAGCGGGCTTCCGAAAAGCGGGTCTTGT
TCTTTCGACGCATTTTACCCCGCGCCGGGGAGGAGCTTNCCGGGNAAGGGTCCACGG
CGGCCGAGGGTTTTCC

Sequence 44

CGTCCGCGAGACTCCCGCGCCACCAACCCCGGCGGAGCTGCTGCTGAGCCACTCAATCT
GAGCCCTGGCTACTAATAAAGTTCGTTTAAAAATCATAATCATTCTTAAGAGAGCGAAAG

TABLE 1

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AGGGGTGCGAACTAGCCGCTCGGCCCGCANGGAGAGCTGGCGCGTCNKGAGGAGACAGCN
GCGGCAGCGGTTGCGCCGCGACAGGAGGAGCCGGTGGCGCCGGGCGGCGGGTCCGCGGC
CGGTGGGGGACNGTGAGTAGCGGCTCGCGCTCGCGTGCAGCGGCGCTGCACTCACTCGCC
CTCTCCAGGGGCTGGGGGTTCTCGGCTCCACTGGGGAAGACTCAGCTTCTCCCCGGGG
TCCCGGGTTGTGCCTTACTCTCGGAGTGGGCAGGGGTATCGAGGCAGGGGCCTCCCGG
CCCGGCTCCCCCATCCCCGGTTCCGACCGACGAGCCCGCGGCTTCTTCCCTTCCCTGAG
CACCGATCCCAAGTTCCA

Sequence 45

TCACCACGCGTCCGGGCGTCCGGGTACCCGAGGGCTCTCCCGCGTTGCTGGCACCGCTGG
CGCCGCGGTCTCGTAGCGCATGGGCCTCCTCCGAGGCGGGCTCCCATGCGCTCGGGCCAT
GGCGCGCCTGGGCGCTGTGCGCTCCCACTACTGCGCCCTGCTGCTGGCCGCGGCGCTGGC
CGTCTGCGCCTTCTACTACCTCGGCTCAGGCCGGGAGACCTTCTCCAGCGCCACCAAGAG
GCTGAAGGAGGCCCGCGCCGGGGCTCCCGCCGCGCCCTCGCCGCCGCGCTGGAGCTAGC
GCGGGGCTCCGTGGCGCCAGCCCCGGCGCGAAGGCCAAGAGCTTGGAGGGCGGCGGTGC
CGGGCCGGTGGACTACCACCTGCTGATGATGTTACCAAGGCGGAGCACAATGCCGCGCT
GCAGGCCAAGGCCCGCGTTCGCGCTTGCCTCA

Sequence 46

CCACGCGTCCGTGTCCGGGCCGGCGCTCCCTTCTCTGCCNNGTGGCGAGTACACCTGCTCA
CGTAGGCGTCATGAGGTCTCCGGTTCGAGACCTGGCCCGGAACGATGGCGAGGAGAGCAC
GGACCGCACGCCTCTTCTACCGGGCGCCCCACGGGCCGAAGCCGCTCCAGTGTGCTGCTC
TGCTCGTTACAACCTTAGCAATTTTGGCCTTTTTTGGTTTCTTCATTGTGTATGCATTACG
TGTGAATCTGAGTGTTGCGTTAGTGATATGGTAGATTCAAATACAACCTTTAGAAGATAA
TAGAACTTCCAAGGCGTGTCCAGAGCATTCTGCTCCATAAAAGTTCATCATAATCAAAC
GGGTAAGAAGTACCAATGGGATGCAGAACTCAAGGATGGATTCTCGGTTCTTTTTTTA
TGGCTACATCATCACAGATTCTGGAGGATATGTTGCCAGCAAAATAGGGGGGAAAAT
GCTGCTAGGATTTTGGGA

Sequence 47

CGCGTCCGCGGACGCGTGGGCGGGGCCGCGGAGCCGGGCCGGGGCATGCGCCGTCTCCGN
CTCGGGGCCGNCGGGGGCGCCCTGCTGAGCGCTACCCACGTGCGTCCGCGCCACCTCGCG
GGCGACCCCGCGGCCAAGGCCCGCGGAGCGGNTCCCGGGCGCCCCGAAGTACGCCCC
AATTTGGGCGAAGTTTGCCTGCGCCTCTCCCCGCCCCACGCGGCGCGCCGGGGCCGCG
GACGAGAGCGGGCCCCGGGATGCGCCTTCCCGGGGTACCCCTGGCGCGCCCTGCGCTGC
TGCTGNTGCTGCCGNTGCTCGCGCGCTGATGGGAACGGGTGCGCGCGGCCGAGCTCGGG
TCCGNGTGCGGCTGCCGACGCGCAGGTGACCGANGAGAGCCTGCAGGCGGACAGCGACG
CGGACAGCATCAAGNCTCGAGCTGCGCAAGCCNGACGGCACCCCTCNTNTTCTTNACCGCC
GACTTTAAGA

Sequence 48

GCGTCCGCTGCATTGCGCCCACCGACTCCACTATGTTGAAGAAATTCGACAAGAAGGATG
AGGAGTCAGGTGGAGGCTCCAACCCATTCCAGCACCTTGAGAAGAGTGCGGTACTCCAGG
AGGCCCCTGTATTTAATGAACTCCCATCAACCCTCGGAAATGTGCCACATCCTCACCA
AGATTCTTTATCTCATAAACCAGGGGGAGCACCTGGGGACCACGGAAGCGACCGAGGCCT
TCTTTGCCATGACCAAGCTCTTTCAGTCCAATGATCCCACTCCGTGCGATGTGCTACT
TGACCATCAAGGAGATGTCTTGATTGCAGAGGATGTCATCATTGTCACCAGCAGCCTAA
CAAAAGACATGACTGGGAAAGAAGACAACCTACCGGGGCCCGG

Sequence 49

ACGCGTCCGCGAGAANGCTCTCAGATGGGACAGTCTTTTACTTTTATTCTCACCTCTGTAA
ATAGCAGGACAGGTTGGGGTGGGCCTGACTTCTATTCTGCTTTCAGGGGGTACTTACTGG
AAAATCAACTTAGGAAGTGAATTTGAGGGTTGGTGAATTTTAAGCCCAGCCTCTGATCC
TTGGTTGCACAAAGCCTAATTTCCAAATATTTCTAACAGATTCAAGACTGTATTGGCAA
GAGGTAGAGAGCTATGATAATGACATAAATTACATAAAAAATCCAGTTGAATGAATAAGAA
GGAATTTGGGCGTATAACCCATGGAACACCAATGGTGCTAAGAAATTTGCCAAACCCTCAG

TABLE 1
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CTTCGTATAAGTCCCAAAGAACTCAGGCTTATAGCACTAAGCAAATTACCAGTGGGAGGA
GGAGGACCTGCCACGGAGCTGGATAATTACATTTAAATATTTTGGCANTCTGTTGGAGA
C

Sequence 50

NCGCGTCCGGCAGGCGGGTCGTAGAGAGCGTTCANGCCGTCTGTATATCTCCCCAGATAC
CTGAAACTGACCACCTGAGTACGTTTTCCATTGCTGAGCTGTTTCCCTGATATCTGGCC
ATGCAACGGAGATCAAGAGGGATAAATACTGGACTTATTCTACTCCTTTCTCAAATCTTC
CATGTTGGGATCAACAATATTCCACCTGTCACCCTAGCAACTTTGGCCCTNAACATCTGG
TTCTTNTTGAACCTCANAAGCCACTGTATAGCTCCTGCCCTTAGTGTGGAGAAGTGTAC
CAGCAAAAAGACTGGCAGCGTTTACTGCTCTCTCCCTTCACCATGCTGATGATTGGCAT
TTGTATTTCAATATGGCATCCATGCTCTGGAAAGGAATAAATCTAGAAAAGAACTGGG
AAGTAGAT

Sequence 51

GCGTCCGGAAGGTCCTTGAGCCATCTGGATGGCGGGCAGTCTGGCACACTAATGTGTTCA
AGGTGCTGGTTGAGATCACAGATGTGGACTTTGCAGCCTTGAAGGCAGTGGTGAGGCTTG
CTGAACCATACTCTGTGACTCTCAAGTGAGCACTTTTACCATGGAGTGCATGAAGGAGC
TCCTTGATCTGAAGGAGCATCGGTTGCCCTGCAGGAGCTGTGGGTGGTGTGATGATT
CAGGA

Sequence 52

GTCGACCNCGCGTCCGGAATAAATAATGACCCAGAGATATTAACAACCTTGACCTGGTTA
TACAGTTAGATATTTGCACAGTCTGGACTCAAACCTGGAGGCTTCTGACTCCTCATCTAGG
CTCCTCTCACTCTGCCATTGCATGGGTTTTCTCATATACCTTCTCTCATAAGGTTTTAC
AAATTTGTCAACCGTCAAATAATTATCAAAATTTATTCACACTATTATAGATGAAAATAATG
TGCTTATAAAGATTAAGTAACCTTCTGAGGGCGCAGGTATCTGGTTCACATAACAACCTA
GCCTGGCTTAGAATAAACACATATTTCTGGTTCTGAAGTTGGTGTCTTCTTCTACCACTT
TCTGCTGTCTCTAAAGATAAAGAATGTTATTGGCTCACTGAATTAATCCATTCTGTTCC
TGGCTGAAATAAAAATTGGTATATTCCTTACGTGAAGTGCAACAGGAAGGGGGCTTTTA
CAACTTCCTTT

Sequence 53

GGAGTCNCCACGCGTCCGCGCGCTGGAGGAGTGGAGCAGCACCCGGCCGGCCCTGGGGGC
TGACAGTCGGCAAAGTTTGGCCCGAAGAGGAAGTGGTCTCAAACCCCGGCAGGTGGCGAC
CAGGCCAGACCAGGGGCGCTCGCTGCCTGCGGGCGGGCTGTAGGCGAGGGCGCGCCCCAG
TGCCGAGACCCGGGCTTCAGGAGCCCGGCCCTACTCCCGGGCTGCCGCCGCTCC
GAAACAACATCCAAAGTTGGCGAAAGGCACCGCCCTACTCCCGGGCTGCCGCCGCTCC
CCGCCCCAGCCCTGGCATCCAGAGTACGGGTGCGAGCCCGGGCCATGGAGCCCCCTGGG
GAGGCGGCACACAGGGAGCCTGGGCGCCCGGGGCTCCGCCGCGA00CCATCGGCCCTAGACCA
CAGAAGCTCCGGGACCCCTCCGGCACCTCTGGACAGCCCAGGATGCTGTTGGCCACCCTC
CTNCTCTTCTCTTGGAGGGCGCTCTGGCCCATCAGACCGGATTATTTTTTCAA

Sequence 54

CNCCCGTCCGGAATNCCCATAGTTAGCTGCTGTGCTTTCACAACTTCTTTCTCTGTAAAT
TCCTCGCTTGGCNCTGAGAAGGAAAAAGATGTTGTAAGGGCTCAGCGAGGAATTTAC
AGAGAAAGAAGTTGTGAACCACCATAGTTAGTTGCTGTGCTTTGAATTTCTTTTGTCA
AATGGCCTCAGCGAAATCTTATTTGCCTATAGCATATCTACAAAAATTTTCTAGACCG
TCTTTTCTACAACCTGGATGGTAAAGTTGATTGAAGTGTGCCTCATGTAGCTTTATGTTTG
GGGCATTTGAAGGGCTATGGCTGGACCAGAGTGTAAATATAAATGCTTAATAGAGAGGGGA
AAAGAAGAGTGTAAAGAACATTATAGGGCTGGGCTCACGCCTGTAATCCAGCATTTTGG
GAGGCTGAGGCAGGCGGATCACGAGGTCAGGAGTTCNAGACCAGCCTGACCAACATGGTG
AAACCCCATCTCTCTAAAAATACAAAAAT

Sequence 55

GTCGACCNCGCGTCCGCGAGCCTTCGGCTGCGGAGGGGGCTCGGCGGCGGGCCGGCGGAGAA
AGTTGCTCCGAGAAGAGGCTGGGTGAGCTGGGCCGAGCCGGGCGCGCAGGGCGGGCGCTC

TABLE 1
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GCGGGCGTCCCGGGCGGACGCGGCGCGGAGACTGCCGGCGCGTCCCGGGGGTTCCGATTT
GAAGACCTTGCTTCTCATCACCCACTGGATTATGCCCCAGGCTTTCCTACCCAATGATCC
TCTTGCAACACGCCGTGCTTCTCCACCTAAGCAGCCCTCACCTCGCCTCCTATGTCAG
TGGCCACCAGGTCTACAGGAACCTTGACGCTTCCACCACAGAAGCCTTTTGGGCAGGAGG
CTTCCTTGCTTCTTGACGGGGAAGAAGAGTTATCGAAGGGAGGGGAGCAAGGACTGTGCC
CTGGAGGAGCTATGTAAGCCCCTGTAAGTCAAACTCTGCAATGTACCTTGAAGTCTGCA
CAGCAAGCCCAGGCTCATTATCANGGTAATAATCATGGTAAGAAA

Sequence 56

ACCNCGCGTCCGGACCTGTTGGCGACATGGTGGCACCCGTGCTGGAGACTTCTCACGTGT
TTTGCTGCCCAAACCGGGTGCGGGGAGTCTGAACTGGAGCTCTGGGCCAGAGGACTTC
TGGCCTTTGGCACGTCTGCTCCGTGGTGCTCTATGACCCCTGAAAAGGGTTGTTGTTA
CCAACCTGAATGGTCACACCGCCCGAGTCAATTGCATACAGTGGATTTGTAAACAGGATG
GCTCCCCTTCTACTGAATTAGTTTCTGGAGGATCTGATAATCAAGTGATTCACTGGGAAA
TAGAGGATAATCAGCTTTTAAAGCAGTGCATCTTCAAGGCCATGAAGGACCTGTTTATG
CGGTGCATGCTGTTTACCAGAGGAGGACATCAAGATCCTGCATTATGTACACTGATCGTT
TCTGCAGCTGCAGATTCTGCTGTTGACTCTGGTCTAAAAAGGGTCCAGAAAGTAATGTG
CCTTCAAACCTTAACTTTGGAA

Sequence 57

GTCGACCACGCGTCCGTCTCATTTGTGAAGAGGTCTGTCTTCTGAGGAAGCAGGGGACC
CTCACCTGTGAACCAAGTGTGCCATGGGAGCTGCTCCATGTCCAGGTCCAGGTCTCCTGG
TCTGCAGGGAACGGCACAAGAGGGGCTGGCCTAGGCCAGGAGGATGTGATCTGTCCTAGAA
GGGGGCTGACCTGCTTGCTGACCCCGCTTGCTGCTGCCTGGCTGACCTGACTCAGCCACG
GCTGTTCCGAGGGGCCCTTCTGAGTACGAACTTCCAGTTGGAGGATCTGGGTGAAGACCCA
GCTGCTTGAGATAGCAGCCTCTGGCTAGGCCCTTGGCGTGGCCAAGCCAATCAGGCAGGT
TTAGAGCCTGGTGGCCCTAGACAGGTCTTCAACCAAGAACAGGGGGTAGCCTTCAAAGG
CCAGCCCTGCCTTCCAACACCGCTCCACAGCGAGGGAAACCAAGGCTCTTAGGGCAGGA
GGCTTGT

Sequence 58

CCNCGCGTCCGGGGAGCAGGGATCAACGGTGGTCCCCGTAAACCTGACAGTAAACCTGAC
AGAGGCTGCAGGAGTGCATTTCCACCCAGGGTGCAGTCAAGGAGTGGAACTCCACACCCG
TTTCTTTGGAGTCAAGGCGCGACCTCTCAGGGAGGAGACTGCTCCTGGTTGCCCACTGCC
GGGTCAATCCAGCTTGACGTGGAACCCCTCCGCAGCCTGGCCTCTTCCAGGGTAGCCCTC
ACTCCCCTCTCTTGTCTAGGATAAGGCCGAGGAAGGCTGACGAGTTCCAGCTCTGGG
GATGCCCTATCAGCTGTGTACCTTGAACAAATCATTTCTCCTCTTGGGTCTCTGTTTCC
TCCAGTGTGAAACGTGGTGAAGGCATGAGGGGCTATGGGAGCCCCAAGGCCTCTTTCAGA
GATCTCCTCTGGGTCCCATGTGACCCCGTGGCTATCCCCAAGGCAAGAGGGTCCCCAGC
CCTGCACCAAGGCCCTGGG

Sequence 59

CCGAGGAAAGGAGTTGGTTCGCGCAGGTGCGGCGCCTGGGTCCCCATGGCGCTGTGGCGC
GGCTCCGCGTACGCGGGCTTCTGGCGCTGGCCGTGGGCTGCGTCTTCTGCTGGAGCCA
GAGCTGCCAGGCTCGGCGCTGCGCTCTCTTGAGCTCGCTGTGTCTGGGGCCCCGCGCCT
GCGCCCCCGGGAACCGTCTCCCCGAGGGCCGGTTGGCGGCAGCCTGGGACGCGCTTATC
GTGCGGCCAGTCCGGCGCTGGCGCCGCTGGCAGTGGGGTGAGTGCCAACGGGGCCTGGG
TCTNTGAGCCTCCGAGGTGGCCTTGGAGGTGCGGCGGAGCCGCGCAGAAACAGGGCTTC
TCAGAGGNCCCCGGGAGGCGCTTGCTGTCCGCGCTGGCCCC

Sequence 60

CGCGTCCGGTGGGAAGCCAGAAGATAAAACCAATGGCTGGGCACGTCTTTAGGTTATTC
CTAGCTAAGAGTTAAGAGTTGTAAGCTCTCTCATTTCTTGTCTTCAGCCTTAACTATC
TTTCTTCTATTAACCTTTATTTGTCTCAGTTACAATGATAGAGGTAACCTCACATACTAA
AAGAAATTAGGTTACCATGTGAAACATTCTTCTTGGCTTGCTAATGTTATCAGATCCA
AACAGCATCTGAAAGAAAATTTCCAAGTACGATGTTGTTCTCTTGTCTTCTGAAATACA

TABLE 1
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TATCATATGTTAAAGTGAGAGTTTTTATACATGTTGAAAGAAGTTGAATGACATAACAAA
TAGTTACTGAGGCCTCCATTTTCTTACTTCACAGTTAAAATTCCTGTTTCTCTTTGGGTA
TAGGAGGGTAGAAAGAAGTGGGAGAGTAATAGCATTTTAAAACACAGAATCAAAAATCAT
ATTAAAAGTAG

Sequence 61

CGTCCGGAGCATCGGCACTGCGGCCGGGTCACCGACGTGGGCATCCGCTACGTGGCCAA
GTA CTGCAGCAATGCTGCGCTACCTCAACGCGAGGGGCTGCGAGGGCATCACGGACCACG
GTGTGGAGTACCTCGCCAAGAACTGCACCAAACTCAAATCCCTGGATATCGGCAAATGCC
CTTTGGTATCCGACACGGGCCTGGAGTGCCTGGCCCTGAACTGCTTCAACCTCAAGCGGC
TCAGCCTCAAGTCTGCGAGAGCATCACCGGCCAGGGCTTGCAGATCGTGGCCGCCAACT
GCTTTGACCTCCAGACGCTGAATGTCCAGGACTGCGAGGTCTCCGTGGAGGCCCTGCGCT
TTGTCAAACGCCACTGCAAGCGCTGCGTCATCGAGCACACCAACCCGGCTTTCTTCTGAA
GGGACAGAGTTCATCCGGCGTTGTATTACACAAACCTGAACAAAGCAAATTTTTTAAA
AGCAGCGTATGTAAAGCACCGACACCCACTCAAACAAGCTCTTTCTTTCNGGAAGGGTA
TTAAGGAAT

Sequence 62

NCCACGCGTCCGCCAGNCTGTGAAGGATCCCAGACTGGCATATGCAGGAGGAAATGGGGC
GGGCGAGGAGTAAGGACCCCAAAAAGCAGGGGTAGGGAAGGGCCCTCCAGCGCCCCACT
GTAATAGGGGCCTCATCAATGCCCATGCTCACTGAATAAAGCACTGCCAGCGAAAGGTG
AAAAGAGGAACAAAGAACATTCTCCTGGACGCCACCCACAGAAAGCCACGTGCAGGCTTG
GCCCTCACCTTGGGGACCTTGGACACGGAGCTGGTTATGTCACATCTGGCTCTCAGAGCT
GGGGCAGCGTCTAGGAGGCCTGATGTAGAAAGCACTCAGCTAAGCCCTAGTTACCGGCAC
ACGGGCACCAGCGCCCCCTCTCAGCAAACCTTNCAGTCTTATGAAATTAGCACTGGATT
CCTTCAATTGGA

Sequence 63

CCCACTGTAATAGGGGCCTCATCAATGCCCCATGCTCACTGAATAAAGCACTGCCAGCGA
AAGGTGAAAAGAGGAACAAAGAACATTNTCCTGGACGCCACCCACAGAAAGCCACNTGCA
GGCTTGGCCCTCACCTTGGGGACCTTGGACACGGAGCTGGTTATGTCACATCTGGCTCTC
AGAGCTGGGGCAGCTGTCTAGGAGGCCTGATGTAGAAAGCACTCAGCTAAGCCCTATT
CCGGCACACGGGCACCGCCCCCTNTCAGCAAACCTCCACGTNTTATGAAATTAGCACT
GGATTTCACCTTCAATTGGA

Sequence 64

NCGCGTCCGCTTCATCTTAGGATAAAGTCTAAATCTTTGTTTTTGCTATTGTACTAAAC
TCATAAATCCTAGGTTATAAAGATAAAGCCTTAAACTTTATCTCATCATCCAGCCCAATT
TCCAGCCACAATGAAGTACTTAAACTCTGTGTCTTTGTACTTGCTGTTCTCTTGGCCTC
CAATTCCTTTTCATCTTTTCCATTTCGGTAAAGTTTGTATCCACAGGCCCTATCTTGG
AAGCCTCCAGCAACTTCTCCAGACAGAGGTGTTAGCAGTGTAGGATCAGATTTCTCAACC
ACGTCACTCCCATGTCTGGGTAGATATCTCTGCCCAAGTGTCTCATAGCACTTGAGCAG
TACTCTCTAAGCGCCCAGGATCTACCATGTTGCTTTTTTAAATTTGATTAATTTATTTT
TTTATACTGCTCCTTGTGGAGCANGGAGTGTTCCAGAGTAGCCACCATGTTATATTGA
ATGGATCTGTGTGCATAATGCAGCTGTCCATCTACATCGTATATTTTTGTCTCCTCAAGG
GTAGGGA

Sequence 65

GTTTGTATTCTGGATACAGGGGATACTGGGGCTCGCTATGTGTGTGGAGCCATCCCTTCC
TTGCCCCAGCCCCACCTCCCTCTCAAACCTCTCTGGCTCTTTCTGAGCTTCCTTCTCTG
CTCCCCAGCTTGCCCAAGTGCTCAGTGCCCCACTTGGCTCTTTTGCTACTTCGGGTCAAGT
GGAGCCTCTTGGGAATGTGAAGTGCCTTACAGAAAGATTGCACTTCAAGAGGAGAGGCTG
CAGGGAGCCATCCTAAACCCAGAGGCCTGGAGCTTACCGTGTCACTTTACTTTTGTACAC
AGGGGTCTCCTTAGTGCCCTCGAGAAGGATTCTTGGCCCTGAGCTTCTACTCCTGAGGCC
ACCTCTGTGCAGCCCCAGCTCCCTCAACTCTAGGCTGTAGTCTCAGTGGGAAAGCCTGGC
TTGGGGGTCTCCTAGGAATGTCCACCTGAAGGCACACTTGATAGGGGCTTGCACTTA

TABLE 1
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TGTCGCCAAGGCCACCTGAGGAACTCCTGGTGCCTATAAGTTCCACCTTCCCTTCCTTT
NCT

Sequence 66

CGTTCCGGCAGCAGCAGCTGGCGGCCAACCGGCACAGCCTGGTGGAGAAGCTGGGGGAGCT
GGTGGCGGGTGCCACGCACTGGGTGAGGGCCAGTCCCCTTCCCCACTGCTCTGTCGGC
CACCCACCGGAGGAGACGCCACCCACCCAGCCGNCACCAGCGACCCCCGGCCGA
AGACATGCTGGTGGCCATCCGGCTGGGGTCCGGCTCCGCAGGACCGTCACCAACGACAG
GTCGGCGCCCGCATCTTATGATGGCGCCACCCTCCCCTCCTCTCAGGCCCCAGTGCGA
GCAGGTGGCCTGGTCTGTGAGCCGACGCACTCAGAGCAAAGGCCAGCCAGGAGAGAGG
ACAGAGCCAGGGCAGAGGCCATGCCACTTTATGGAAAGACACCTCACTTGGATTCCAGCA
TTTAAACAGGAAGTGACTTCTTAGCAAGCCTGGCCAGGACGGAGCCTGCAGGCCTGGGCC
TGGTTCCGGGGTCTGTTTTATGCTCTTCGGTCCCTTCTCTTCTTCTCTGGGGCCCTGCCT
CTTCCTACCCATAAAGCACCAAACCAGGGCCGCTGCCATGACAGAGGGGCCAGGCTGGC
CTTCCTTTACATCCCGGCTNTTCCAAGGCTGGTCTGCCTNACTTCTTCTGGAATGTG
GGCCCCCTCTCCCTTGCTGACCCCTCTTCCTNTTGTNTNTTGTCTTTCCANGCCCT

Sequence 67

CGCGTCCGGCAACCTAAAAATAGGATGCACCAATAGCATGTGGTTCCAAGTAAGTTGTGA
TTTTATTTTGTAGACAGTGTTCCACTGGAAGGGAGGGAAGGGCTTACATTCACAGACAGT
AAAGCAGGGCTGTGTAAGGAGCTACATTTACTTAACAGTCTCCTTTCCAGCTAGGTTTGT
TTTATTTATTTGCAAGTCAGCTAAGAATTAACCTTTTAAACCATCTAAACAGGCAAGCA
ATATAAAGATTTCTACTAGTGCAAGGTAAGTGGTTTGAATATACAAGTGCCCTTTCCTGC
CACCCAGTCTCACTACCGTTTTAGTCCTGCAGCTGGGTAAAGCCACTATTGTGTGGAAAC
TCTCCCATGTGCCCTGTCTCTACCTCTGGACACACCAGCTCCTTCTTCCACCTATTCTAT
TCCTCAGTTAAGCCAAGTGATCAGAAGTAGTATTAATGGGTAGATAATTTTA

Sequence 68

GCCACGCGTCCGGCGCCGGGTGCGCCAACCTACGCAAAGACCAAGCGGGCTCCGCGCGGAC
CGGCCGCGGGGCTAGGGACCCGGCTTTGGCCTTCAGGCTCCCTAGCAGCGGGGAAAAGGA
ATTGCTGCCCGGAGTTTCTGCGGAGGTGGAGGGAGATCAGGAAACGGCTTCTTCCTCACT
TCGCCGCTGGTGAAGTGTCGGGGAGATTGGCAAACGCCTAGGAAAGGACTGGGGAAAATA
GCCCTGGGAAAGTGGAGAAGGTGATCAGGAGGCCGGTCCACTACGGCAGTTTATCTGTCT
GATCAGAGCCAGACGCGACGCGTCCACTTCGCAGTTCTTTCCAGGTGTGGGGACCGCAGG
ACAGACGGCCGATCCCGCCGCTCCGTACCAGCACTCCAGGGAGAGTCAGCCTCGCTCC
CCAACGTCGAGGGCGCTCTGGCCACGAAAAGTTCCTGTCACTGTGATTCTCAATTCCTGC
NTGGGTTTTTTT

Sequence 69

ACCCANACCTGGGAGGAATTAATGGAATGCTTGNCCCTGGGCAGCCTTAGAAAACAGACCC
NAGCTTATCTAANGCTGCTCCGAGGCAGTGACCAACTANGGCTCAGGAAGTCAAGAANA
TTGACCAAGCTTATAGTGATCACCTCTTGACCTTTGTGTACAGTCNTTTTGCTTTTTAA
AACCTTTTGTGAACCGNTTATGGCCTTTGATTCTGACAGGCATCNTAGTTGTGAAGGGG
AACANGGGCAGGATATAATGTTTCGTTTACCAAATACAANAAAATCNGANGTACCCAGNT
AGATCACAANATTTTTTGGGAGAAGGNCTNTTGGGTCTCTTCCAGGAGNTCACTTCANNN
TTGGNAACCTTGACAGGGGCTTGGGGAATTTANTATCCCTTGGGCGCAGGGNCNCAAAN
GGGTGGCANTTTCCCTCCTTGGAGNTTTTTTTTCAAGAANTCCTTGCNTNGGGGAAAGA
TGGTTACNANNATCCCGGAATTTCAACCCCTTCCCTATTTTTTTGGTTTAAGG

Sequence 70

CGCGTCCGGCACATTAATAAAAAAATACTTATTTTTTATTATGGAAAGGTCTTGGAACATT
CTGATAGTGAGCTTCCGGCATTCAATTTGCTGTATCTGGCTTAGGAGATGCTAGGGTGGCA
AGAAGAGGCACAGGCTTAGATGCGCTGGGTGGAGAGTTGGCTTAGTAATGATGGTTGAC
TCTAACGACTTGATTATCAGCTGTGCCTTTTTTCTTCCTGCCTTCTGAGGTGTGTTGCCT
GCATCCTAATTCACGTACTGAGTAGCAAGCTAAGCAGGTTGTAGCTGGAGATTGTAAGAA
ATCCTGAATGGAAACCAAAGAAAGACTGTCACATCACATGATGTGCCCTTTTCAATCCCA

TABLE 1
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TGTCTCTTCCAGTGGCATCCCAGTGCTGTCTCTGCCCCCTGCTGCTTCTGTAAAGATTT
TCTGACACAAGTAACTGCCTCATAGACCTTCCTTTTATGAAATCCTGAGTTTTGGTTTG
GGTACGTCCTTTTAGAT

Sequence 71

GCGCGGCTGTGCGAGGGCGGGGGTGGGGCTGCAGGCGGGGCAGGGCTGGGTGGGGGCG
CGCGACGCACCTGCCTGCTTCCTGCACGGGTGGNCCCCAAGCACTGCGGGGCCCCAGCCC
AAAGCGGACCTTGA

Sequence 72

CGCCCCGCGTCCGGGGCGGCTGGTGGGCGACCGGGCGCATCCTCATTGCATGTGCGGCGGC
CCTACCTCGGCCCTGGCCTGACCCGGCGGCCCTGCCCGCCCCTCCCTCCAGCATCATGG
CCAGCCCCAAGAACCAGGAAGTTCTTAAAGAAGTCAGGGTGCAGGATGAGAACAACGTTT
GTTTTGAGTGTGGCGCGTTCAATCCTCAGTGGGTGAGTGTGACCTACGGCATCTGGATCT
GCCTGGAGTGCTCGGGGAGACACCGCGGGCTTGGGGTTCACCTCAGCTTTGTGCGCTCTG
TTACTATGGACAAGTGGAAGGACATTGAGCTTGAGAAGATGAAAGCTGGTGGAATGCTA
AGTTCGAGAGTTCCTGGAGTCTCAGGAGGATTACCGATCCTTGCTGGTCCTTGCAGGG
AGAAGTA

Sequence 73

GCCCCGCNTCCGGAAATGTCCGATTTTTTTTTAATTTAATGAAATTGTTAATGAGGAAAA
ATTTTTAATATAGGTCTTATCTACCACACATCCCATAGATTTAAGGATTTAATAGAAA
GTCATGATGTATGTATTTAAGCCACGTTAAAAGAAAAAATAAATATGGACCGGTATTC
AGTGAATACAGTTTCATGGTTTTTAATTCCTTCAAAGCACATTAATAATGGTGTGCTGAT
AAACCCCAAGTAAATTAACCTTTTTCCGTATAAATCCATTTTTGTTTTGAAGAGGGGA
AATTATATTTATTGNTGTTTACTGAATCCTGGTGTGAAAGCATATCAGATATGTATGAAC
TGCTACTGCTGTACTTCCGATTTACGGACATCATTTTATTGCTATTTGTAGACCGTGATA
ACATGAACATGAGTCCTATTTATGTGGGCCTTCAGTGGATGGGCAGTGCCACTCANGTCT
CTGGGGGTTTTCTCTCTTAATTTAAAGTAA

Sequence 74

AGTCGCCNCGCGTCCGTGTGTTTCTCCTCGGTCCCCAACTCTACCTTCCCCAACCCACAGT
TCCTGTCCCAGATGTCCTGATGCCACCATGGCAGGGGAGCCCAATAGACTCCCAGGAA
CTTCAAGGAGTGTCCAGCAGTTTCTGGCTATGTGTGACAGGGGTGAACTTCCCCAAGGGG
CCAAGTACACAGGAAGGACTTTGAACTACCAGAGCCTCCCCATCGCTCCAGAACAGACA
ACTCCTGGGCACCCTGGTCAGAGACCAACCAGCATATTGGGACCAGATTCTGACTACTC
CAGGGTGCAATCCTCAACTAACCTACACTGCCACACTACCAGAAAGAAGCAAGGGCCTTC
AGGTTCTCACACTCAGTCCTGGAGTGGATCTTTTCATTACCCCTNCCACCCTNCCATT
GNTCATCCTGTGTACCCACCATCTAAGCAGTCTTCATGTACCCCTGAGGTCAAGCTTGA
A

Sequence 75

CCCGCGTCCGGGCTGGCATGGCTCTATATAAGATTGTTGCANAAANTCCCTACTACTTTT
GGTCTGTGATGAGCTTAATTATGCAATCTATATNGGCACAGGATGAAAACCTCTCAAAAA
CAATGTTTCTGCCCTTGCTGAGAGAATGGTCGAAAAAATGGTGAAAGAGGACAAGATAG
AAGCTGAGGCTGAAGTTGAACTTTATTATATGATCCTGGAACGTTTGGGAAAGTACCAGG
AGGCCTTGGATGTCATCAGAGGGAAATTAGGAGAGAAGTTGACAAGTGAGATTCACAGTC
GGGAAAATAAATGCATGGCTATNTACAANAAGCTGAGCAGGTGGCCAGAGTGCAATGCCC
TTNCCGGCGCCTCTTACT

Sequence 76

GNTGGAGGGAGCTTTGCTACTCTGCTCTTGGCATGACTCCAGGATTTTTTCTGGAATCC
AACCTCTGTCTCTTAGGAGAAGGAACCTGTCTTGGTTGAGATGGCTGGGCATGAGGAG
GAAAATTTCCATTAGTGTAGAAAAGTGCTGGACAGAATCCGGTTTGGAAAATTACAAATC
CAGTTGGTCAAAATAGGCCATTTCTATGTGTGACCTATTCGTGGTATGCCAACTGGACT
GCTTCCTAAACAGGACGAGGAAAGTGAGGAATATTTTTATATGAAAGCCTTAGCCTGTCT
GGCACCCATGAAAAAACTATTTATGCACTCCTACTTTCACCCGTCTTTTGCATTCTCT

TABLE 1
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ATTTGTAGCACAAACAGAGTTGAATGCCACAAAACACCCCGTTTATAGTGAGCTGTTTTCA
GTGACCAATATCAGAAGGAGGCTTGCTTCTGGACTAGCCTACTAATTGCCAGCAGCCACC
ATTTTTCATG

Sequence 77

GGAGAGTGCCTTGCCGGACCCTCAGGACGGAGCTGCTGGGCTGCTACAGTGACCAGGACT
TTCTGGCCAAGCTGCACTGTGTGCGGCAGGCCTTCGAGGGGCTTCTGGAAGACAAGAGTA
ACCAGCTTTTCTTCGGGAAAGTGGGCCGACAGATGGTGACAGGCCTGATGACCAAGGCTG
AGAAGAGCCCCAAAGGCTTCCTGGAGAGCTACGAGGAGATGCTGAGCTATGCCCTGCGGC
CCGAGACCTGGGCCACAACACGGCTGGAGCTGGAGGGCCGAGGGGTGGTATGCATGAGCT
TCTTCGACATCGTGCTGGACTTCATCCTCATGGACGCCTTCGAGGACCTGGAGAACCCTC
CGGCCTCGGTGCTTGCCGTCCTGCGGAACCGCTGGCTGTCANACAGCTTCAAGGAGACGG
CCTTGCCCACTGCTTGCTGGTCGGTCCTGAAAG

Sequence 78

CACGCGTCCGAGAACGTGATTTCTCAGCCGAATGAGTTTGAACATACCCACAGGAAGA
TGACTTGGGGTTCAAGGAAGAAGATTTGGCTCCAGATCATGAAGTAGGAAATGCCTCTCT
CAAACCTGAAGGCATCCAGAACTGGGATGACTTATGGGTCCAGAGAGAGGGTCTAGGAAA
GCCTCAGCCTCGGGACAGAGGCCCGGCTCCTGGGTGAACCACGCTGGGGCCAGGCTAG
TAGTGATCGGGCCGCTGTGTGTGGTGAGTGTGGCAAAGCTTCAGGCAGATGTCAGATCT
GGTGAAACACCAGCGGACCCACACAGGGGAGAAACCCTACAAGTGTGGGGTCTGTGGCAA
GGGCTTTGGGGATAGCTCTGC

Sequence 79

CGCGTCCGCAAGAAGATAACCCCAAACCTCTTTTCTCAGAGAGTTTGTAGCCTAGTTTGGG
ATAGATAAGATCCACATATTTAGTCATATAAGACTACAGGAGAGTAGAATAGATGCACCA
GATGGTGTCTGAATGAAAGTGGTACTTTGTAGACTATAAGTGCTGTAAATTCTAAAGGACA
GGTTACTTTTGCCTGGAGTGGTCAAGAAAGATTTTATTTAAATAAGGATTTGACGGGCA
GACTTAGCAGTCAAAAGGGAGAAAGCGGGTAAACAAATGTAAGCCATCATAAGAGTGCA
TGTGGTTTGAAGCATCAGGGAAAAGACTAGCCAACCTGAAGTAAAGGTTCTGTGCAAT
TGGGCAATCAATAGCATTAAAGTTGGAAACAGCTTGGGGACAGACACATAAGAGGGCCAGA
GTGTGAATAATTTATCTAATACTTTATAGCACTTGGACATTTACAGAGCACTTTTCTC

Sequence 80

TNCTCTCTGCCCCCCCACATTCGTCTCTTGATTCTCTGCTTCTCTAGCTCAGCCGCTGA
CCTTCGTGCCTAGCCGCCACTAGTCCTTGACCAGCGTTCTGGCAACTCTTGCCCTCAAGT
TCTTCAGCTCCAGGCTGAGCCGATGGGGATTGAGTTTCTGACATCAGAGCTNAGTTCT
TGATTTCTGCAGCAAAACCTTCAAGGCTTCCATCACCTCGGCTCTAGAGTCCATCATGCT
CCTCTCCTATGACCTGCTAGGGCTGATCAAACGTTCTGTCTCCTGCCGTGCCCTGCCCTG
CCCTGCCCTGAGCTTCGCTTAGCCTGTTGCAGGCTTTGTGTTTTCTTCTTGTGCTGTTG
GACCAGCAGCTCCTTCTACCCATAAAACCCCTTCTCTAGGTCGGTGGAATCTTGGTC
ATCCTTCCGTGTCTAGNTAAACTGGNCACCTCCTCCAGAAAGCCTTCTAAAACTCCTT
CTCAGGGGAAGTGGTTTTCTTCT

Sequence 81

CACGCGTCCGCAAAATAGCCCCACATCCNGGCAAAAGGGGCCTTTCCCTTGGCCCAGAAG
AAAAAGGAACAAGTGGAGTGCAGAAGAAATCTGTACTGAGAGACTTGGGCCTAGCTTGT
CTTCCAGTGAGCCAACCAAGGCTGGTGCTGTCCCATCCAGTCCCTCGACGCCAGCACCAC
CCAGCGCCAAACTTGCCGAGGACTCAGCTCTGCAGGGTGTGCCCTCTCTGGTGGCAGGTG
GAAGTCCACAGACTCTTCAGCCGGTATCCAGCAGTCACGTGGCTAAAGCTCCAGTCTGA
CCTTCGCTTCCCCCGCCAGTCTGTCTGCGCATCAGACAGCACTCTCCATGGGTTAGAGA
GCAACTCTCCCTTTTCAACACTGTCCGCTAATTATAGCTCACCTTTATGGGCTGCAGAGC
ACCTCTGCCGCAGCCAGATATCTTTTCAGAGCAGCGGCAGAGCAAACATAGGCGCTTTC
AGAATACCCTAGTAGTCTACATAAAATCTGGGTTGCTGGAGATCACTTTTGAAACCAA

G

Sequence 82

TABLE 1

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ACGCGTCCGCACCCCTGTGTCCAATGACATGTGCACCCAGGTGCGCAAGCGGCCTGTGGA
CACCCAGGCCTGTAACCAGCAGCTGTGTGTGGAGTGGGCCTTCTCCAGCTGGGGCCAGTG
CAATGGGCCTTGTCATCGGGCCTCACCTAGCTGTGCAACACAGACAAGTCTTCTGCCAGAC
ACGGGATGGCATCACCTTACCATCAGAGCAGTGCAGTGCTCTTCCGAGGCCTGTGAGCAC
CCAGAACTGCTGGTCAGAGGCCTGCAGTGTACACTGGAGAGTCAGCCTGTGGACCCTGTG
CACAGCTACCTGTGGCAACTACGGCTTCCAGTCCCGGCGTGTGGAGTGTGTGCATGCCCG
CACCAACAAGGCAGTGCCTGAGCACCTGTGCTCCTGGGGGCCCGGCCT

Sequence 83

CCCCGCGTCCGCTCTTACGCATTACTCTATGTCTACTGTTATGGGTGTGTAATTTTATAC
CATAGATGTTTACTCTTTAAACAGACACTTCTAGTCTGTTTTATTTTCATGTGTCTGGGAG
CGGATAAAGTGTGAGGTTGAGGGAGAAAGAGAGGCTGTCTCAATGCCTTGGCACGGCAT
GAAGACAATCTCCCTCCTTGTCCCTTTCCCTGCTAGCTCCTGATGACTGACAGATTCA
CAGCAGAACAGAAAGGACTGGGAAGGGATGGAGGTGGGACATCTGGCACTGACCTTCAGG
GGCTGACCCTGTGGGGGAACATCTGCCCTGAAGAGTTGGAGCCTTCATGTGATGACACAG
AGCTGAAGTGTGATATTCGGGAGGGGATAGAGAGTGCTTGGAGGTTTTCTGATTTTGAAG
AATCCCAAGTCAGTC

Sequence 84

GTCCGGCCGCTTCCGGTCTCCCTCCCGGGCCGGCGCTGGCCTGACTGCGGCCCGGTCCG
TAGCACTCCGCCCTCCGCTTCTCCCGCCCTGTAGCCGCGAAGACTGCTTCAGCCTTTCCC
TGTGCTGCCCTGCCGCGGATGGAGACGAGCTCGAGCTGCGAGAGTCTTGGCTCCCAGC
CGGCGGCCGCTCGGCCGCCAGCGTGGACTCCTTGTCCAGTTAATGTGTTAAGAGCCATT
GACATTTGAAGATCATCAGAAGTGAAGATAAAACATCTCAAAAATTATAATTGCCTCCAC
TTCTCATTGAGAGAATTGAGTGCATACAAAATCAGCTTCTGTTGTATCATCAGATTCCAT
TTCAACTTCTGCCGACAACCTTTTCTCCTGATTTGAGGCCCATGCAGTCCAGTTCGGGAGC
TAAGT

Sequence 85

CCGCGTCCGCGTGAGGTGTGGGTGTTTCGTTTCTCAGGTAAAACATGGCTAAAAGCTTACG
GAGTAAGGTGGAAAAGAAAGATGCGTGCTGAAAAGAGAAAAAAGAATGCCCCAAAGGAGG
CCAGCAGGCTTAAAGTATTCTCAAACCTAGACGGTGATGTTTTAATGAAAGATGTTCAAG
AGATAGCAACTGTGGTGGTACCCAAACCCAAACATTGCCAAGAGAAAAATGCAATGTGAGG
TAAAAGATGAAAAAGATGACATGAAAATGGAGACTGATATTAAGAGAACAAAAAGACTCT
TNTAGACCAGCATGGACNGTCCCAATTTGGNTGAACCCAAAGGCAAANAAAAANGNTTGT
ANGGCCAAACCGANNGAAAAAAAANGGGGAAAACCAACCNAANCCCTTAAANGGGCCA
ANGGGGTTTGGCCNCTGNNAATNNTTTNAACCCNTTTGAAAACCCCCCTGGNNGANACC
NCCCGTAAAAAATNTTCCCCCNNTTTTTTTTTT

Sequence 86

CCACCGCCGTCCGAGGAGGGATCACCAAGCCGTGGGCCATGAAAGTCGGGGGGGGGCACC
GCAAGCTTGAAAGCTTCATCATTGACCTTTCNCAAGAAATTACCGGGGCCAAGGCCGCTT
GTTTCNAAAACCCCCATGGAAACNAAAACGANGGGGAGGCANGGGAGAACCACCCCTTG
GACTTTTTTTTINATTTCTTCTTGGACCTACCGAAGGAGGGGCACAAATTGCCGGGAAGATT
GCTTGCTTTTCCACCTTGGGACAAGGGGATCCTGGGACTTTTCCGGCCCGGGGTTCCTNT
TCCCGTTGGCCCGGCAAGGGATTGGGTCNAAACAATTGACCCAAGGGGAAGAAATCCCCGGG
GACGGTCACAACCGGGGNACCAAGGNAAAGCTTTTTTGGGANGGGAACCTTTTTTTTA
ATT

Sequence 87

CCGGGTCCCTCCCTGCGGAGCCGCTGGTCCGGCTGGCGGAGATGTGACCGCGGGCCCGGC
CGGCCTGCCTCAGGCGTCGCGTCAGCTCCCGTGTCCGTGCCCTTAACCCACACCGATGGC
GGGATCCGGCTGCGCCTGGGGCGCGGAGCCGCGCGTCTTCTGGAGGCCTTCGGGCGGCT
GTGGCAGGTACAGAACCCGCTGGGTAGCGGCTCCTTCNCTTCGGGGTATTCGGGTTTCG
CTTGTTGGGGAACCTTGTTGGCCCCCGGGGCCCTTAAANCAGTTNTTGCCGCCAGAAA
CCACCGGGGTTGCGGCCTTGGCGCCNAGTATGNTTCCGAAAAAAGGGCCGGGCTTG

TABLE 1
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NACAAGTTGCANGGGTCACAAAAACATCGTGAATTTTGATNGGAGTGGTTACAATCCAC

Sequence 88

CGTCCGTTTAATTATAACCTAGATTGTCTGGGCAACGGCAGGAACGGAGTGCCACTGTGG
AGCAGATAACTGCAGTGGTTTTCTAGGAGTGCGGCCAAAGTCGGCATGTGCGTCAACAAA
TGAAGAGAAGGCAAAAAATGCTAAGTTAAACAGAAGAGACGAAAGATCAAAACAGAACC
AAAGCAGATGCATGAAGATTACTGTTTTCAATGTGGAGATGGTGGAGAGCTGGTCATGTG
TGACAAAAAAGACTGTCCCAAAGCATACCACCTCCTATGCCTTAACCTGACTCAGCCACC
ATATGGAAGTGGGAGTGTCCGTGGCATCAGTGCGATGAGTGCAGCAGTGCAGCTGTTTC
CTTCTGTGAATTCGTCCACATTCATTTTGTAAGATCATGAAAAGGGGGCCCTGGTTCC
CTCTGCACTGGAAGGCCCGCCTCTGCTGCTCGGAACATGACCCCATGGCTCCTGTGTAC
CAGAATACTGGAGCAAGATAAAATGTAA

Sequence 89

NGTCGCCCCGCGTCCGTAAAATGTTAAGTCCCCTAAAAGTGAATAAATTTTAAATACCTA
CTTTTAAAAATACTGTCTTCTAAATTGACATAATTGCTTTTCTTACCAAAAGAAGGAGAG
GTTCCCCTAATTCCTTTTGGGCCATAGATCCGCTTTTAGGATCTGATTAAAGATGTGGAC
TTTACCAGCAGGAAGATACCCATGGGCACACCATTCAAATGTATCAGATTTCAACGGTT
TTACAAACTCCCCCGGGATTAAGTCAAATGGGTGGATATTACAGCTGTTTTCATCAGATA
TGTTATTTTGTGACAACCATCAGGACAACAATGTTTATAGATGGAAGGATAACTTCCTG
GTTTTTTTCCACATTGAATGTGGCTAGTTACATATCTCAATTTAAATAAATTGTGGAAA
GCCAAAAAAGTATGGTCAAGCTAACCTTGGGGTGGCTTTACCTGATGCCTACAAGCACA
GAAAAATAGTTTTTAA

Sequence 90

CCGCGTCCGATTATGCCAAGAGAAGGTATTACTTTAAGATGTGAAAAATGTAAAATGGAA
AATTACATTACTAAGAAAAACAAAAAACACAACTGNNAATAGAAANTGAAAAACAT
TGCCACAAATGCAACGCACATACAAGTCATAAAGAAAAAAATAATTTAAATGAATAGA
AATATTTAAGACTTAAGCTTTGAAGAACACAATTTAGATGCAATAATTTCATTTTCTCA
ACAAACAAGATTATGAGTTTCTAATCTTCAAACAAGTGATGGAATAGTGTTTCTTGAAAA
AGAAGAAATCCATTTATTTGTTGATTCAAGATATATAGAAGCTGCTCAAAAAGATGCAAA
AATGTACAAGTTCATTTATTGACAGCAGCTAATTTAAAGATTTTGTAAGTAGTAAAAA
TTACTTAAAAATTGGTGTTGAAAAAGAATACTTAACCTTAGCTGATTTTAAAAAACTTCA
AGCTTGATTTCCAAGTGCAGAATTTGTCAAATCAATGCGCAAAAATTAAGACTTATTA

Sequence 91

CCGTTGTCCCATATATCTTGTTCAGCAGCCATATATCTTGNGGTCTACACGCCTAAAGC
ATGATTTCCCTTGAAGTCTTGGGGTTGNTTAAAGGAGAGTCCCTTCAATATAAACCTCT
GAAATATTAGTGAGAATGGCTCACTAATGTGAACAATGTTTAAATTATTTATTTATAT
AGAATTACTGAATATTAGTACTGGGAAAATTTATAGAAATCATCTAGTCTTACCCTTCAT
CTTACATATAAGAAAAATGGTCTTTTCTTCTAATCACATTTACAAAATATGATATAAAC
TTGACCATGAATGTATGAGCCTAATTAGAGAAACAGAAAATCAGCATGTCAGTTTTCTT
CATTCAAATAACATAGTCTTTCTAAGCAGTCATTCTGGGAG

Sequence 92

ACCACGCGTCCGCAAGGCCCGCCCTTACGTAAGTCCGAGCTCGGATCCAGTGTGGACCT
GGACTCGAATCCCGTTGCCGACTCGCGCTCTCGGCTTCTGCTCCGGGGCTTCTTCCCTGC
CCGCCCCGGGGCCCTGACCGTGGCTTCTTCCCCGGCCTGATCTGCGCAGCCCGGCGGGCGC
CCAGAAGGAGCAGGCGGCGCGGGGGCGCGCTGGGCGGGGGAGGCGTGGCCGGAGCTGCGG
CGGCAAGCGGGCTGGGACTGCTCGGCCGCTCCTGCCCGGCGAGCAGCTCAGACCATGTC
GCCTGAAGAATGGACGTATCTAGTGGTTCTTCTTATCTCCATCCCCATCGGCTTCTCTT
TAAGAAAGCCGCTCCTGGGCTGAAGAGATGGGGAGCAGCCCGCTGTGGGCCTGGGGCTCA
CCCTGTTACCTGTGGCCCCCACACTTTGCATTCTCTGGTCACCATCCTCGGGACCTGGG

Sequence 93

NCGCGTCCGCCAAGATGGCGTCCNTCATGGAAGGGCCGCTGAGCAAATGGACTAACGTGA

TABLE 1
18/467

TGAAGGGCTGGCAGTACCGTTGGTTCGTGCTGGACTACAATGCAGGACTGCTCTCCTACT
ACACGTCCAAGGACAAAATGATGAGAGGCTCTCGCAGAGGATGTGTTAGACTCAGAGGAG
CTGTGATTGGTATAGACGATGAGGACGACAGCACCTTCACAATAACTGTTGATCAGAAAA
CCTTCCATTTCCAGGCCCGTGATGCTGNTGAGCGAGAGAAGNGGA

Sequence 94

ACGCGTCCGCGGACGCGTGCGGGGCCGCCNCCCTGGACGAAAGAAGAGGGGCCCTC
CAGGCCAGTCTGGGCACCCTGGGATAGCGGCTGCAGCCAGGCATGGCCGACTCTGCACAG
GCCAGAAGCTGGTGTACCTGGTCACAGGGGGCTGTGGCTTCCTGGGAGAGCACGTGGTG
CGAATGCTGCTGCAGCGGGAGCCCCGGCTCGGGGAGCTGCGGGTCTTTGACCAACACCTG
GGTCCCTGGCTGGAGGAGCTGAAGACAGGGCCTGTGAGGGTGAAGTCCATCCAGGGGGAC
GTGACCCAGGCCCATGAGGTGGCAGCAGCTGTGGCCGGAGCC

Sequence 95

CCCCGCGTCCGAGGTGACCTCCTTGGCCCAGATCATCTTAGAGCCAAGAAGCAGGACCAT
TCGTGGTTTTGAGGCCCTGATTGAAAGAGAGTGGCTGCAGGCTGGTCACCCATTCCAGCA
GCGCTGTGCACAGTCAGCCTACTGTAACACCAAGCAGAAGTGGGAGGCTCCTGTATTTCT
TCTCTTCTTGGACTGCGTGTGGCAGATCCTTCGTCAGTTTCCCTGTTCTTTGAGTTTAA
TGAGAATTTCTCATCATGCTCTTTGAGCATGCTTATGCCTCACAGTTTGAACATTTCT
GGGCAACAATGAAAGTGAAGATGTAAGTTGAAGCTACAGCAGAAGACGATGTCTTTGTG
GTCCTGGGTTAATCAGCCCAGTGAGCTGAGTAAATTCACCAATCCCCTCTTTGAAGCCAA
CAACCTTGTCTGCTGGCCTTCAGTTGCTCCGCAGAGTCTTCCACTGTGGGAAGGTATTTT
CCTACGTTGGAATAGATCCTCTAAGTATTTGGATGAAGCATATGAAGAAATGGTTAACAT
CATTGAATATAATAAAGAATT

Sequence 96

CCGCGTCCGGTTTNCCTGTTGGTTAGGCTGGTCTTGAACCTCCTGACCTCACGATCTACCC
ACCTTGGCCTCCCAAAGTGCTGGGATTACAGGCCTGAGCCACTGCACCAGGCCACCCTG
TCTCTATTTTCTAAAATAATAAATCTGATTTTAATGTGGCTGGATATAAATCATATCACA
GTTGGATTTGGAAGTTTGGGTTTTATTCCTAACTTTGATGGGAAGCCATTTTAAGCAGAA
AGATGATTTTAAAAGACCACTATATTTCTGTGTGAAGAATGAAGTGGGAGATTTTCATAG
TATTATTAACAAAAATAGAAATAGTTGGGGATCTGGTTTGGCTTGGGAAATGGAGGAAGTT
CAACTTTGGGCATGCTCCATTTGCATTGCCAAGACATTGCAGCAATTGGAAGTGCAGTCA
GAGAGCTTAGGAGAAACACTTGGCAGATGGACATAGAGAAGTAGTACTCAAAGCTTGTGG
ACATTGATTAATAATCATACAGGAGTATGGGCTGACAAAAGATTNCAAAGAGAAAACCT

Sequence 97

GTCNCCACGCGTCCGGGACTCTCGGCCCTGGAGAAGGAGGTGGACTTTGACTCCGACCCC
ATGGAGGAGTGCTGCGGATCTTCAACGAGTCCACCAGCGTCAAGACGGAGGACAGAGGC
CGGCTGGCCCGGCAGCCCCCAAGGAAAAGAGTGAGGAGAAGGGGCTTTTCGGGTCTGACC
ACTCTGTTCCCCGGGCAGAAGAGGAGGATCTCCACCTTTCCAAGCAAGGCCAGGAGGTG
GAGCCCCGAGGAGGGGTCCCGCGGTGCCCCGGCCCCGACGGCGCAGGAGGTG
TGCTACCTGCGGGCCAGCAGGCGCAGAGGGCATCGGCGAGCTTGCTGCAGGCCCCCGCC
AGGCTGGCAGAGAAGTCGCCCTNCGTCCACATTTCCCGCCCCTGGCGAGAA

Sequence 98

CGCCNCGCGTCCGGCAAAGCAAAGGGAAATTATTTGGTGGATGGTAGCTCAAAATTGGA
ACTCTTGTCTAATTCAGTTACATTGGCTTTACCCTCCTTAGATTTTTCATCAAAGGGCT
GTCCCATTCGAATCTTACTAAAACATTTTGTAAAATAAACTCTTTTCTTTTATATTA
ATAATTAGGCTTTTAAATAAAGATGTTATTCCTTTAAATGGTGGGCTTACCATCATTGA
AGATGTCACCTCAGGTGGCCTTGCTTGATCAAAACGCCTTTTTTAAAAACCAAGCTTTAAA
AACATGTTTATAATTTTCATGAAGTACATATATATTGTTCCCATAGTCTTCAGCTTTAAAA
CTATAAATATGCCCAAATTTTGTATTTGCCCTACTTTAAGTAGGTTTATTGNGTTTGT
TTTTTCAAGTACTTGTTTTCTCTGATAAGACTCAGGAATTCTGAAATGTGAAATGNCT
CAATT

Sequence 99

TABLE 1
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CNCGCGTCCGAAATCGTTGCTACCAANTATTCAAACCCCTTTGAGTTTACATACTAGTTA
CCTTAAAAATTANTNCCTGACNCTCNTGANTTTGGNGGAAAGCCCTTGNTCNCCTCTC
TNATGNACTCTCATGGGTTTTTTGTATGATTTGAATATNAATGTGCCTAAAGAATTTTT
GCTCTCTAATCTATGNATACATACTTGAACAAATCATTCTTGCTTAACTGCTGATCTTT
TGTAAAACTATTG

Sequence 100

GCCCCGCGTCCGGCTGGAAGCAACAGTTTGGCAGCCTGGGGTACACTCAGGTTATTCGTT
ACAACTATTATTATTTGATGTCTTTTTTAACTCAGGTCATCCACTTTTGACTGTCATC
CATGGAAGAGCTCTTATTAAGCAGGGATGAAGCAAACCTTGATTGGAGTTGGGGAAAAAGAAG
CTTTTGGAAAATTCTTAAGCAGGGATGAAGCAAACCTTGATTGGAGTTGGGGAAAAAGAAG
ACAGATTAGTATTTTTCATGCTGACAAAAATAGCTGCTATGACTTTTCCCGCAACGTGG
ACAGGGGCCAAGTGAAGCTGAAGTGGTCTGTCGCCAGTGTTCCCTTGTCGTCG
GCGATTTTGGCCCCGACCTTCTTGGTGGGCTTAGTGGTGGCAATCTGTCTCTTCTACCA
GACTCTGACCCTCCGAGGGTCGAGGAAGCTCACAGCCGCTGCCCTGGGGCTGTCCACA
CACATCCACTGAAA

Sequence 101

CCACGCGTCCGGGCGTCTCGGCTCTTCTGTATCTCCCTGGCCTGGTCGCTCTCGGCTTCT
GGGCTCGCCCTTCTGTCTGTGAAATGGACTCTGGGTGAATCCAAATGGGATCGTCTCG
GGCTACGTCCTGTCCCTCCGGGACTACAAGTCCCAAGGTGCTCGAGGCGACCTTGGCTCC
CCCTCCCCACCGGGACCCGCTCCCTCCAGCCCAAGTCACGTCGTCTAACCTGTTCCAG
CTCCTGCCCCGCCCCGTTCTCCGCTCCCCAAGCCGGAGCCCGAGCTGGAGGAAGCCCCCA
GGTGCCAGGATCTGCTCGGATCCGNGCCCGCTCCGGCCGGCACCATGGACAGTGAGGCAT
TCCAGAGCGCGCGGGACTTTNTGGACATGAACTTTCAGTCGCTGGCCATGAAACACATGG
ATCTGAAGCAGATG

Sequence 102

CCACGCGTCCGGTCCGGGGTGAATCACGTCGCTGCGGCTGCCGACGACCCACACCCGGC
CGGCCGCTCCGCAGACCCACCTTGGCCGCGCGGCAGGGGGCGCGCAGAGCCCCGAGGGA
GCGAGTCCCCGCGCGTGGCAGCTCGGCGGCTTCTCCCTTCGGGAGGTCCGGCTCCCGGT
CTCCGACCCGCTGGCGTCTCGCTGCGGCGGGGCGGACGACAGCGGCGCCAGGAAT
GGCTTCGGCGGGCAGCGGCATGGAGGAGGTGCGCGTGTGCGGTGCTGACCCCTTGAAGCT
GGTCCGGCTGGTGTGCATCTTCTGGCGCTGTGTCTGGACCTGGGGGCGGTGCTGAGCCC
GGCCTGGGTACAGCTGACCACCAGTACTACCTTGTGCTTGTGGGGAGTCCTGCCGAAA
CCCGCCAGCTTGGACATCTGGCACTGTGAGTCCACGCTCANCAANCGATTGGCAGATTG
C

Sequence 103

NCGCGTCCGAGAAATTGCAATTTTTTAATTTTAATTTTAAGAGGAATTCGTGCCAGAGA
GAACTATTAAGAAAGGGGTATATCCAGTCTAAGGATTATTAGGCTCAAGTCCATGAATAG
GCTCTGGGAAGTTTGTAACACTTGGAATTTATTTGCAAAATGTGTGTGAATGTGCTT
TACCTTANAGAGTTCATGAATTTTATTAGATTGTTGAAAGAGTTTTAGTATTAACAAAGG
AAAAACAAACCACCACCATCACATAACAAACCACAACAGTGATTTAATCTTTTACCTA
ACAATAAGTAAATTGAGGCTCTGATGGCTAAATTAATAGCCTGAGGCTACACAGTCAGTG
GCAGAGCCCAGGGTANAGAGAGAACCAGCACAAAGCCATTGTGGGAGCCGAGGGTAAAGAG
AGAGCTAGGTGTTGTACCTTAGTAAATAAATCAGAA

Sequence 104

GNGTCGCCCCGCGTCCGGAAGGTGGAGACCGCTTACCCTGATCNGGGATGTATCGGCTGC
GGGTGCGCAAGGCAGTCCAGGAGTGACCTGGGGCTGTGGAGAGCGACCCGTGGCCTTGTG
TTTCAGAGTTTACCACCTAGGATGACTTCAGTGACTAGATCAGAGATCATAGATGAAAAA
GGACCAGTGATGTCTAAGACTCATGATCATCAATTGGAATCAAGTCTCAGTCCTGTGGAA
GTGTTTGCTAAAACATCTGCCTCCCTGGAGATGAATCAAGGCGTTTCAGAGGAAAGAATT
CACCTTGGCTCTAGCCCTAAAAAAGGGGAAATTGTGATCTCAGCCACCAGGAAAGACTT
CAGTCCGAAGTCCCTTCAATTTGTCTCCTCAAGAACAATCTGCCAGTTATCAAGACAGGAG

TABLE 1
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GCAATCCTGGCGGCGAGCAAGTATGAAAGAAACGAACCGGCGGAAGTCGCTGCATCCCAT
TCA

Sequence 105

CGTCCGCGCAGCGCTTGAATCCCGTGGCCTAACCGTCCCTCGGAAGACCGGTCCCCTCG
GGAGGCTCTGCAGTCGCGCCTGGGGTCAGGGCCGGGGCGAATGTGGCTCGCGTTCCTAGG
CCTCCCTGGGTTGGAAAAAGACTATGTTAGCAANGTGTACGCCATGCTTTTGCCAACTT
TCCAATTAAGGTTGACATTCCTGCATAAGCATTTCTCTGTGAAAATGTCCTTGCCTCTT
ACAGAGGAGCAGAGGAAAAAGATTGAAGAGAATCGACAAAAGGCTCTGGCCCGCAGAGCT
GAGAAGTTATTGGCAGAACAGCATCAGAGGACTAGCTCGGGCACCTCCATTGCTGGCAAC
CCATTCCAGGCCAAGCAAGGCCCATCCCAAAATTTCCCAAGGGGAGTCTTGTAAAGGCCAA
GTGAGCCATTGGTGTCAATTTCAAGCAACAGAATCTCAGTAGCTCATCTAATGCTGACCA
AAGACCTCATGATTCCACAGTTTTCANGCAANGGGAATATGGAAA

Sequence 106

CCGGCCCTATCCCTATATTGTTTGCTTGTTGGGATAACCTAAAATTTTTATCCAGTTT
ACTACTAATTTGTTTTACCTGATGTATCTTCTCTTCAATAATTTTATGTTACCTTCTGT
TTAGAATAATATTTGCCACAGATATTTAGGTTTAATTCTGTGTTTGAATGATTCCAATGC
CTTTCTCTACCCACTTTGAACACTTCATCCTGGAATGGTTGGCTGATGTATGTCTCTAAA
CAATTTTTTTTTTAGGAGAAGGTATGTGGGTAATGTAATTCCTAAACCTTTGCTTTTCTG
AAAAATCTTTCAATTTGCCTTTATACATGACCAGATTTACTGGGTATATAGATTTGTTGAT
GAAAAAAGGTAAAAAGAGCAACTTTTGACATCCAGAGGTTTGTCTGGCACTCACAGCTAG
CCCCGTGTTATTCTCCCTATT

Sequence 107

GCGTCCGTCTNAACCCTAAAGCTAAAAAGTCATTGTGAACCTTTNNGGTCTGATGCTAAAG
AAGGGAAAACAGGTACAGGAAATCCCATGTGGATGCTTGCTTNCAGGATTTCTGCCATG
ATTCCAGAATCCCACAGCTNCAACATGATTGCAAAAAGACTCCCTGCTCATTTTNCCTCA
GCATGCACAGCGCTGTCTGTCTCAGTTGCAACTCGACAGAGCCGCATTTACTCCAGAAC
CCAATCCACACACCTGCTCATCCTGCCCGAGAGGAGTGCCTGAAGCCAATAGCAGGGAA
CTAGAGCAGACTTGGGTGGATCTTCATTGGATATTAGGTATCTTGCCCTAGATAGGCAAG
CAGTGGCCTTACAGATGCTGACAGATGATCTGATTAGATGCACAGNTGCTGGGTGGCGTC
TGGGGCCAGTCTATTGGNCAGTTCTGGGAGNNGGGAAGTATTGGGCTCTGCAAAGATG

Sequence 108

CGTCCGCTCCCTGGCCCTGCTCCGGGAGCTGTGCTTGTCTCGCCAGCAGCCCTGTGGCT
GCAGGAGCGCCAGGCCAGCTTCGCCACTCGCTGCCCTGCAGAGCTTCCTGCTGAAACC
TGTCCAGCGCATTCTCAAGTACCATCTGCTGCTGCAGGAAGTGGGAAGCACTGGGCGGA
GGGCCCAGGCACTGGGGGTCGCGAGATGGTGGAGGAAGCTATTGTGTCCATGACAGCGGT
TGCTTGGTACATCAACGACATGAAGCGCAAGCAGGAGCATGCAGCGCGCCTCCAGGAAGT
GCAGCGGCGGCTGGGTGGCTGGACCGGACCAGAGCTCAGTGCTTTTGGGGAAGTGGTGT
GGAGGGCCGCGTTCCGAGGAGGCGGANGGGNNGGTTGGCCCCCGGCTACAAGGGGGT

Sequence 109

AGAATTGTGTATGCCTTGCCTATCACGGTACAGCACGAAGCCAGGCTCCTTTCTCCACCA
AAGAAGATGGAACCAGACTGGAATTCTGTCTCCAGAGAGAAACCCAGCTGTTTGGGTCAA
AGACAGATGCTTCAGACTTGGGTGGGAAGGTGAAAGATGGCTATTTAGAAAGCTGGTGGC
ACGTTTTACATAAGGGAATGTCAGATGGGAGATGCTAGTTGCCATTTTAACAAAGCAGGT
AAATCGGTAAATTTAACTCTGTCCATGTTCTGTTAGAACTCAGGGACAAGGGATCCAT
GAAAAAG

Sequence 110

ACGCGTCCGCACGGAGAGAACTGGNCCTGGAGCGGGGGCGCGGGGAGGGGGGCGTCGTCN
TGGGTACAATTGCGCANGGGCAAAGGTGAGAGGTGCGCTGNCGCCGTTTTATTGAAG
ACATCGTCCAGTTCTGACCATGGACTCNCAGCCATCGGCCCTTAGTTTCCATTCCTCTA
GNNGGCCTTCNGAGGGNTCTACTGACGTACCTCCTTCCCTTGGTACCGGACCGGGGAAGT
GTTTTCGGGCGCGGGAGGTTCCGCATGCCAGGCCTGGCCAGGGGA

TABLE 1
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Sequence 111

CGGGCCCTTAGTCCAAGCCTTGATCGGCGACTAAGTGACGGCAGTGA CTGCCGCCATGCC
GAGCTGGACGGAAGNCACTTCTGAGAAGGGCGGAAGTGTCTCGGGCTCCTTAGAGGGAGG
ACACCATATTAGTGCCAGTGGGGAAGTCACCGGGTGGAATTACTTCTTTGTGGAGTTTGT
GCTGTAGCGACAATGAAAAACGAAGAGTCAACTTTTATAAAACAAAATAAAAATTAAGTC
AAATCATGCCAACCTTTATTAGATCGGCTAGCAGGGTTAACTTAATTCAAAGCCCCTGA
TGAATCGGGCCTTCATTGCACCCCCAAAGGCTCCGCCACCCTGATT

Sequence 112

CGCGTCCGGGCGCCGGTACGCCTGGTCCCCGCGTGGAGTCTTTACTCAAACAGCTCCCG
CCTCAGGCCGAGATGAGGAGCCCTTCANAATAGCTGCTGTCTCTGGGNGGACCCGGGCGT
CCTTGGCAGCCCAGCTGNTCTGGACAAAGCCCTGCCAGTCAGGCCTCCGCTGGCAGGAAC
CATGGCAGAGGCTGGGGATGCTGCGCTATCGGTGGCCGAGTGGCTGCGGGCATTGCACCT
GGAGCAGTACACGGGGCTCTTTGAGCAGCATGGCCTGGTGTGGGCCACTGAGTGCCAAGG
CCTCAGCGACACCCGCTGATGGACATGGGCATGCTACTCCCT

Sequence 113

TGTCGACCCCGCGTCCGCGGGANGTTTCATGGAAACGCAGGACACGACAGAATTGTGTNTG
CCTTGCCTATCACGGTACAGCACGAAGCCAGGCTCCTTTCTCCACCAAAGAAGATGGAAC
CAGACTGGAATTCTGNCTCCAGAGAGAAACCCAGCTGTTTGGGTCAAAGACAGATGCTTC
AGACTTGGGTGGGAAGGTGAAAGATGGNTATTTAGAAAGCTGGTGGCACGTTTTACATAN
GGGAATGTCAGATGGGAGATGCTNGTTGCCATTTTAAACAAAGCAGGTNAATCGGTNAATT
TTAAACTCTGTCCATGTTCTGTTAGAACTCATGGACAAGGATCCATGAAAAAGACCTGTG
ATGTTTCNTCTGGCGCTTTACTGGCCTGGGCACACCTACCAATCTTTTAGGATTTGACTG
GTTCCATTACATTTCT

Sequence 114

GTCGACCCCGCGTCCGTATCACTGTAATTTAAGGAAAGAAAACCTTCAGTTCTGCCTCTGG
ATACCAAGATGCCCATTTGCTCAGTTCAGACAACCTGATATTAATAAAGCTATGCTCCTT
ACTTACTTCTTTTATTATAAACAAATTCCTTTGCTTTGGCTGATACTAGCTGAGTCATTG
ATCATCATTGGTACCATGATATTGTAATCTATGCTGCTATTTGGCACAAGACTGAAGTTC
ACACTACAGTAGAGAATACTATAAGATAATTTGCAATAAATACTGATAATAATAATACCA
GATATTTTAACTAACTTTTCTACCTTTATTAATAGCAATCAGCACACTTGAATGTGTAA
ATTTACAGTAACTTTAGGCAGAACTTAAGCTCCAGGCCACATTTGTATAAGAACACCAA
GTATTCAAGGCATAAAGTCTGTTGTAAGCCAAAAAAA

Sequence 115

AGTTCAGTCTGCAGCAGTCCCTGCACCCACTTCCAGTTGCTTTTCATCTNTGGAAAAAGA
TGAGCCCCGTAAAAGTTTTGGCATCAAGGTCCAGAATCTTCCAGTACGCTCTACAGATAC
AAGCCTTAAAGATGGCCTTTTCCATGAATTTAAGAAATTTGGAAAAGTAACTTCAGTGCA
GATACATGGAACCTTCAGAAGAGAGGTATGGTCTGGTATTCTTTTCGGCAGCAAGAGGACCA
AGAAAAAGCCTTGACTGCATCAAAAGGAAAACTTTTCTTTGGCATGCAGATTGAAGTAAC
AGCATGGATAGGTCCAGAAACAGGAAAGTGAATTTGAAATTCGCCCTTGATGAAAGGA
TAGATGAATTTACCCCCAAAGCAACAAGAACTCTNTTTATTGGCAACCTTGAAAAACC

Sequence 116

CCCGCGTCCGCACCAGGCCCGAGTCTTCCCTTCATGGAGGGTGACGTGAGCAGCAAGGAT
AAGATGGGCAAAGGAGTGGATGGGACATATAAAAAAGCTCTTCAGGAAGCTGCAGCAAGG
TTTGAGGAATTAAGGCCCAAAAAGAGCTAAGACAGCTGCAGGAAGACCGAAAGAATGAC
AAGAAGCCACCACCTTATAAACATATAAAGGGTCTCCCTCTGTGACCCAGGCTAGAGTGC
ATTGCTGCAATTTTGGCTCACTGCAACCTCCGCTTCGTGGGCGCAAGTGATTCTCCTGCC
TCCTGCCTCAGTCTCCTAAGTAGCTGGGATTACAGACATGAGCCACCAACGCCTGGCTAA
TTTTGTGATTGGCAAAAAAGAGATTTTGTGACACATAAAGATGATATGAAATTCACCTT
CAATCAAGTATCCAGAAAATTTA

Sequence 117

CCACGCGTCCGGCCCTTGCCCCTGTCNCACANGAATGGACCCACGGCCCCACCCAGCGCC

TABLE 1
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GTCAGCGCCCGGCACTGCCACCCGGGTCCGGGCCGCTGCCTGCACGTGGGATCCGTCGGG
CAGCCGGGGACAGAAGAGACCCCGCCGTTGGGACGCAGGGCAGAGCCGGCCACCTAGTCC
CTTCCAGCCAGCAGAGGCGAGGGAAGGCGTCACTGCCCCGGCGGGGAGACGGGCAGGACG
CCCTGCCCCGCACCAAGCAGCCTCCGCCGGGGCGCCCTCAGTCCCTGCTTGGCTCTGTCT
CTCCACACCCGGCAGGGCCCGCGGGCTGCCCCAGCCTGGGGGGGTCTGTGGGCAGCTGCTA
CTCAGTGCCAACCCCGTGGGGCACAGA

Sequence 118

NAGGGAGTCGACCACGCGTCCGGTGCGGAGCAAGCATCACACCATGGCGTATGAGTGTTT
CTCTGTGTAGACTCAACCTGCGCCTCGCCGTCCCCATTGCGACACCCGATGCCCGGGG
TCGCTACGGACTTAAATCTCCGCACCGCACCTCCACCTCAGAAACGTTCTGGATCCG
AACACTGCCCCCTGACGACCTAGAGAGATCCCGGCTCCAGCCCACTGAGTGGGTTGAGC
CTCGCTGGTAGGTCTCTCTCCAAAGCTCTGGAACAGACTCCTGGGAGTGANGGTAGNG
GGGGAGCNGCAGGCACCGCCCCCTTTCCCAAGTCCNCCGCCCACTTCATCCCTCAGGCA
CCTNCCAACTCCTGGCCTTNTCTGCACGAGGCGCCTGCCCGGGCCCCGCTACAGGGGA
CCCAGCTCTTCTTGACGCCATTGGAAGNTGATCACCTGGGAGGTGA

Sequence 119

CACGCGTCCGGTTTTACTGCTCTTTGCCATGTGGTAAAAAGAGGCTGAGACATATTTAAG
AATCCAAGAGGATATTATGTGTCAGAATTCAGACACTGATGAGAAGTTTTTAATTGTT
CTTTTTTATTTGATTTTGAATTCAGGTGCACTCTATTCAAGTGCAAGGATATCAGAAAT
TTTTTTTTATTTAAAAAATTTTTTTTTCGAGATGGAGTTTCACTCTGTTGCCAGGCTGG
AGTGCAATGGCAGCTTACTGCAACCTCCACCTCCTGGTTCAAGCGATTCTCCTGCCTCAG
CCTCCCCAAGTAGCTGGGGATTACAGGCACCGCGCCAACACACCTGGGCTTATTCTAATT
TAAGTAAGAAAATGGGAAGTCTTACCATNTTTGGTCAAGGCTTGGGTCTTCGAACCTNC
TGACCTTAANGGTGATNCCACCCANCTTTGGCCTCCCAAGCCGTGCTNNGGATTATAGG
GCATGAAGCCCACCCANGCCCGNCCAGGATTTTTATATTTAAGCCCTTCTTGCTCTTN
AAAAAAAAAAAAAGGT

Sequence 120

NGTCGCCNCGCGTCCGGGAACCTACCGGTACCGGCCGCGCGCTGGTAAGTCGCCGGTGTG
GCTGCACCTCACCAATCCCGTGCGCCGCGGCTGGGCCGTCCGAGAGTGCGTGTGCTTCTC
TCCTGCACGCGGTGCTTGGGCTCGGCCAGGCGGGGTCCGCCGCCAGGGTTTGAGGATGGG
GGAGTAGCTACAGGAAGCGACCCCGCGATGGCAAGGTATATTTTGTGGAATGAAAAGGA
AGTATTAGAAATGAGCTGAAGACCATTACAGATTAATATTTTGGGGACAGATTGTGA
TGCTTGATTACCCCTGAAGTAATGTAGACAGAAGTTCTCAAATTTGCATATTACATCAA
CTGGAACCAGCCAGTGAATCTTAAATGNTCACTTAAATCAGAACTTGCNTTAANAAAG
AAATTTGGGGNGTCTGGGTTTA

Sequence 121

CCNCCCGCGTCCGATCAATTCCTGGAATTTATGGTTATAACTTCGAAACAGAAGATGGA
CTAATTTTATTTTATCTAATTTTATTGTTGGAAATTTAGGAATTTACGGAAATACTAAT
TTAAATTATTTAAAAAGATCATTAGAATCAAGTAAACCAATTTTGATGGCTATGATTGAC
TCAACAAGAGCTAATTATCCAGGTAAAACAATAGATAAAATTTTGTAAAAAGTTTTTA
GAAAAAACATTTTAAACAACAAATCCACTTCAAGAATAATTGTGCGAGCATACGATGAA
GAGATGCTTTCAATTCAAGAAATCCTTGATTTAGCTTACAAATCAAACGTAAAGGTTGCT
GTATATGGNAGAAATTATGACAATCTTTTAGAAATGAATCAACGATTAGCACAAAAACAA
AATCTTGAAATACATTATCCAGAATTTTGTATTTAGGCAAGCTAATAAAATCGATAAT
TTTGTAATCTTAATTACATCAACACCTGGAGCGAATTTACCAAAGATTTTTTAGAAT

Sequence 122

CGCGTCCGCGAAACTGAGAACCAGTTCTCCGAAGCCGCGGGTCTCCGGCCGGCGGGCGGC
GGCGGCGGCGCAGGTGAGCAGGGCAGGGGGCAGCCGAGGGAGCGCGGGGAGCGGGGGCCG
GGGGGCCACGTACGAGGGGCTGCAGGCCAGCCGGGGCGGGACTCGCCAATCCTGCGTCC
CCAGCTCAGGACGCGGACGCTGATCCGAAGCCCTGGCCCCGGCTGGGTGAGCACTGGGA
GAGCAGGCCAGGTCCGCAGCCCGGGTGTGGGGCCCTCCCCAAATCCAGGGAAAGGATCG

TABLE 1
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TGGAGCGGGGTGGGGACTGAAAGCCATTTCTTTCCCGTGAAGAATTTTATCAGTGCAA
GTAACAAAAATATT

Sequence 123

CGCGTCCGCTNAAAAAATAATACCAAAAAAGTTTTGTAAAGACAACGCTCTCGCTGT
GTTGCCCCGCCACTGTGGCCTCCTTAGCTTCTTCCCTGGGGCCTGCTGGACCTTTCCATA
CTCCAGAACTAAAGGGGGTCCAGGACCCTGCTTNAACCCTAGGATCCCGCATCTTTTT
TTTTTTTTTTGGACGCAGGGTCTTGCTGTGTCCCTCAGGCTGGAGTGCAGTGATTCACT
GCAGCCTCAAACCTCGTGGGCTNAAGTGATTTCTTAGCCTCAGCCTNTAAGTAGCTGGG
GACTACAGTCATACACCAACATGCCAGCTAANTTTCTTTTTTAATTCTGTAGAGNA
TGTTTGAGACGGCTTGGGCTNTGTTGCC

Sequence 124

CCNCGCGTCCGTGCTGATAAACTCCTTTGACCTGACGATTGCTCTAAGTCCTAATTGCC
ATATTTATATTCCCATAGTAAGAGTGTGGAGATAGTGTTGAGCTTTTTGCTGGTGT
TAAAAATGCATAATGAAAGATGGCACNAGAGAGGCATATTATCCAATTCATGAAGTTG
TTTGTGTTAACAGAAAGCTTATTTAATCACTTAACATTGTTGATTTGTCTAATCACAGT
AGCGCTATTGATTAGGAGCCTGACCTTANATGGTTGACTTGTGAGTGTATTCAATATGG
TGAAATAANGGTGTTTGATATATGGCTGCAGATTTTGAAGGTGTCATTAGCAAAGGTAT
ACGGAATAAAATANGGGTTATAGTATTCCTTACTCAAATTCTGTATGTGCTAGAGCTGGC
TGGAGTCTGTTGGCATGCTCATTGGTGTAAAGNCCGNTAAGGACTATGCT

Sequence 125

GCCCCGCGTCCGCACTTTGTATTGATAACTTAAATGGCATCAGTTTATCTTAGACATCA
GCTTGCTTTTTATCTCCTTTTTTAGTGAGTGAAATAGAGCAACTAGCATGCCTGTGTTCC
CAGCTACTTGGGAGGCTAAGGTGGGAAGATCAATTGAACCTAGGAGGTTGAGGCTATAGT
GAGCTGTGATTGCACGACTGCACTCCAGCCTGGGCAATGGAGTGAGACTCCTGTCTCTAA
AACAGCAACAACAAAAATAAGCAACCATAGTGCATAAGGGAAATTAATGTTCCCTATA
GAAATATGTGTATGTCTGTGATAAGTGGTATGCAAATGCTAATTATTTATAAAATAAAA
GTTCCAGAACTATTCTTATCATTGCCACTTGAACAATTAAGGGTTTGCTTTATTTCTAA
TGTTTAATAGGAACCTTTGCTTCAAACAGCCTTTGTTGAAATCATGTAAAAATTTGTTA
ATAG

Sequence 126

CNCCACGCGTCCGGCGGCCAGCCGCGCCTCCCGTTCTCCCTCCGCAGCGGGCGGCGGT
GGCGGAGAAGGAACTCGACACGCACCGACCGCCCTCCGCCCCAGCCGAAGCGGAAGCTG
TAGCCCGCTCTGGGCGGGGCCATGGGCGCCCCGCGCCCGCCGGGTCATGAGGACGGAGG
CGGAGGCAGCGGGGCCCGCTCGAGCCCGGGGACTTTGTGCAACTGCCTGTGCCCGTCA
TCCAGCAGCTCTACCACTGGGACTGTGGCCTGGCCTGCTCCAGGATGGTGTGCGGTACC
TGGGCCAGCTGGACGACAGTGAGTTTGAGAGAGCCCTGCAGAAGCTGCAGCTGACCAGGA
GCATCTGGACCATCGACCTGGCCTACCTGATGCACCACTTTGGCGTGAGGCACCGCTTC
TGTCACAGACCTGGGGTGTNGACAAGGGCTACAAGAACCAGTCCTTCTACAGGAAGCACT
TT

Sequence 127

CNCGCGTCCGCGGTGCGGTGGGCGGACGCGNGGGTTCGTCTGGACAAGTCTGGGAGTGT
GGCAAATAACTGGATTGAAATTTATAATTTTCGNNAGCANCNGGGCGGAGAGATTCTNGT
AGCCCTGAAATGAGATTATCTTTCATTGTGTTTTCTTCTCAAGCAACTATTATTTGCCA
TAACTGGAGACAGAGGCAAAATCAGTCAAGGCTTGGAGGATTTAAACGTGTTANTCCA
GTAGGAGAGACATATATCCATGAAGGACTAAAGCTAGCGAATGAACAAATTCAGAAAGCA
GGAGGCTTGAAAACCTCCAGTATCATAATTGCTCTGNCAGATTGGCAAGTTTGGACGGTC
T

Sequence 128

GGAGTCACCNCGCGTCCGCCCCGCGTCCGCCCCGCGTCCGGTTAATCTTAGGCCTGAGGT
TTGGGGCCGGGTGACAAGGAAGTTAACTCGTCCTCCCTGCCAGATTCTACCCCTTTTCG
GAGCTGAGCTCCAGCCAAACCTGTGGAGTTTTCTTGACCATTTTAGGACATGTTACTGC

TABLE 1
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TTCTGAGTTGGCTGCCCCAGCTGCTCAAACAAGACCTTTCTCCTGGGTTCCCTAGTAGTGA
AAAGGAGCAGCAGAGCAACTGAGGAGGAGGGCGGGTGGGAGGCATGGGACTGGGGCTTGG
GGAGGTCAGGCGAGACCGGGGTGAGAGCTCAGAGAAGCTCCTGTGACTTCCATGCTAAGA
TCTTGCCAGAGAACTCTGGTCAGTCCTCGGGTGTCTGGATGAAGTAAAGGAGTTAGGCAT
TTCTTCCTTTGATTCTCTGGCTTACCT

Sequence 129

CGTCCGGCCCGCTCCGGGCGTGGGCGTGTTCTCGGCGGGCGTGCCTGGAGGAGGAGCTGG
GTCCTTGTGCGGCTGCAGAGTCAGATGGGGCGGGGATTTGGGGCACCGGGTCCTCACCT
TCACGAGAAAAGGCCCCACAGCACGTCCCCACTACCCGACGACTCACTCTTCGTGGCTTCT
CTCTCCTCCCCAAGAGCAGGGGTGGGCCTGTCTCGCGTTCCCTGCGGGAGTCAGGAAGC
GTCCTTCTACCTACCAGTCCTCCCCTCTGGTGTCTGGGGACACTTCCTGGGGGCCTTTC
AGGTGGTTGGCGCCGGTGCAGGGCCTGAGAGCCTGGG

Sequence 130

GCGTCCGGTGGCATCATGACTTCTGGGGCAGTAGACTGAGCAGCAACACCAGCCACAAGT
CCTACCGGCCTCTCACCGTCCTGACTTTCAGGATTAATACTACTACCTCTCGGGAGGCTTCC
ACCCCGTGGGCTTTCACGTGGTCAACATCCTCCTGCACAGTGGCATCTCTGTCTCATGG
TGGACGTCTTCTCGGTTCTGTTTGGCGGCCTGCAGTACACCAGTAAAGGCCGGAGGCTGC
ACCTCGCCCCCAGGGCGTCCCTGCTGGCCGCGCTGCTGTTTGCTGTCCATCCTGTGCACA
CCGAGTGTGTTGCTGGTGTGTCGGCCGTGCAGACCTNCTGTGTGCCCTGTTCTTCTTGT
TATCTTTCCTTGGCTACTGNAAAGCATTTAGAGAAAGTAACAAGGAGGGAGCGCATTCTT
CCACCTTCTTGGGTGCTGCTGAGTATCTTCTGGGAGCAGTGGNCATGCTTGTGCAAAAG
AGCAAGGGATCACTTGTGCTGGGTTTAAATGCCGGAATTTGACAATCTTGGGTGATAG
GC

Sequence 131

GTCCGCTGGGGGCCCTGGGGCTCTCTGCGTCGAGAGCGCTCGAAGACCCGGGATTCCTGG
CCCGATCGCGGGCGGGGGGAGACCCAGCTCCACCCAGCTCCCGCCGGCTCGGGGAAGG
GGCGGCCCTTTAAGAGCGCGCGGCCCGCCCGCCCTCCGGGCAGGATCCGAATTCGA
GGGAGGCGGGGCGGAGACGGCGGCGAGGAGGAGGCCGCGGCGGGACGCATAGAGCTGC
GGCTCGGGCGGCGCCTCCTGCGGCGGCCCGGCCCGGCTCCGGCCCCCGCTGGGGCAATGC
TCCCCGGG

Sequence 132

TCGCCNCGCTCCGGGCACACACATGCCAGGCTATTTTAAGAACTACTACAACATATGATA
AAGCTGTGAATATGTAGCCATGAACCAAAACAAAGTCTCTGTCCTTGTGGAACATTTGTT
CTGTGAGAGAAAGACAGTGTGTTGGCTCACATTGTGGTCAGTGCTGTTGAGCAAAATAGGT
CAGAGTAAGGGGGATGGAGACTGGTGGGAGGAATGCTGCTTTATCCAGGATGGGCAGGGA
GGAATCGATGGTGTGAGCACTGAAGGATGTAAGATCTGCTGCTCTGGGGAGAGGAGCAGC
ATGGAAGGAGTAGAGTGAGAGGCCATGAGGAAGGATCAGGCTTGACTCCTTTGAGCAAG
GGGGATGGGAAGAGTGACGGNAGAAAGAGGGACAGGCCACATGGCCTGGTGGCCTGTGCT
GAGGCCCTTGGGCTTTTCTTCAAGTGAGATGAGATGCCATTGGCCAGTTTGGGCAGTGATT
TNATCAGACTTGGTTCAGCAGGACCATNCTGCTTGGCAATGTGGAGAGCANGCTGAAG

Sequence 133

CGCCNCGCTCCGAACAGGCGGGCACCAAGGCGCAGGATTTCTATAATTGGCCTGATGA
ATCCTTTGATGAAATGGACAGTACACTAGCTGTTCAACAGTATATTCAACAGAACATAAG
AGCAGATTGCTCCAATATTGACAAAATTCTTGAACACCTGAAGGCCAAGATGAAGGTGT
GTGGAAGTATGAACATTTAAGGCAGTTCTGCCTTGAGCTAAATGGACTTGCTGTCAAAC
TCAGAGTGAATGCCATCCAGATACTTGCACTCAAATGACAGCAACTGAACAATGGATTTT
TCTTTGTGCACTCATAAAACCTCCAAAAGAGTGTCTGCTATAGACTATACTAGACACAC
ACTTGATGGTGTGCTGATGTCTTCTGAATAGCAATAAATATTTTCCAGCAGGGTTAGCAT
AAAGGAATCATCTGTAGCGAACTAGGATCAGTATGCCGTAGGATTTACAGAATATTTTTC
ACATGCTTATTTTCATCATCGGCAGATATTTGGATGAATATGAAAATGAAAC

Sequence 134

TABLE 1
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GCGTCCGCGAAAGCTGGGAAGCCAGGTCTACCTGCCCCAGACGAATTGGTGTACCAGGTG
CCACAGAGCACACAAGAAGTATCAGGAGCAGGAAGGGATGGGGAATGTGATGTTTTTAA
GAAATCCTTTGAAGATGATGCTGCTTTTTACAAAGCATCGTTTTAAAGCACATGGCCTTT
TTTTTTTAATTATTAGTGGTAGTAATATATAGAATGTATTACATAACTGTCACTGAAGT
GGTTGGGGAATGTGGTGACTGAGGTACAGGAACTACTAATCTTGCCATCTTGCTTTA
AGGTGTTATGGTGGCACAGTTACTGCTCGCCTGTTAAATTTCAAATGTCCTGTTTGATAC
TACTGGAGAACACTATTTTTAATACAGAAAAAGCTCCCTATAATGCACTTCAGAGAAATT
AA

Sequence 135

TCGACCCACGCGTCCGGGAGTCCCCCTGCCCCCATCAAATGCTTCCTGCAATACTTTG
CACACCAGAGACTGGGCCTCCCCAGATCCAGGGGGACAGGGGTCCCTGGGGGAGTCCCCA
GGGCCAGCCCCTCCAGGCCAGCTGCACACACTTGACACTGATTTGCACAGTCTTGACAA
ATAGGGGGTAAGAGCCCAGTGGCTGGGGTGGGCAATGGGGGTAGCCTCTGGCCTAGGGAG
TCCCCTGGCACTGCCAATGGGCACAGTCCCAGACACACCCCCCTGGCCCTGGACCCCCA
GGCCCTGCCCCACCAAGCGAAGGCTGCTTCCTGCTGGAGAAGCCCCAGATGTCAGCTCT
GAGGAAGAGGGGCCAGCCCCTCGGAGGCGCGGGGATCCCTGGGCCACCCTACTGCTGCC
AACAGTTCTGATGCCAAAGCCACACCCTTCTGGAGCCACCTGCTGCCTGGGCCCCAAGAG
CCTGTTTTGGACCCACAGACTGCGGTCCCATGGGGCGGAGGCTGAAAGGAGCCCGTCGC
CTGAAAGCTTGAGCCCCCTTCGAAAGCCTNCGGAAGGGGCCAGGCCTGCTGAGCCCCCCC
AGT

Sequence 136

CGACCCCGCGTCCGTGAGAATTCAGCTTTGGAGTCCCGGGTGAGGGGTTTTAGATAAACC
CATCAATATACCCACATTCTGTGACTCTTTGCATCACTCGTGTTATTTATTTATTTATT
TATATTCTGCCTTGTTCCAGAAAAGTGTTTAAGGCAACAACGCTTGTTTTTGGTGT
CTTTTGACATTTGAAAATTTAGTACATTGTTAAATGTACTTGTTAAACAGGTAATTTA
AAGAGAAGGAACAATTGTTTTAGTAAGTTTTCTTTTCTTTTCAATGAATTGATTCT
TCAAATTTAAAGTTCTTGAGAGAAGGAGAGGAAGATACAGCAGACATAGGACTGAGCCAA
GGAAGAGTCTGCCTGAGAGAGACGCTTGGCCTGTGCTTTGCTGCCATCCGTGCGGCCTG
GCCACA

Sequence 137

TCCGATTTTTAAATCTATTGGCCGTGTTGTCTACCTGAAGTTCTTCAACTGCCAAAAGC
ACAGCCCTTTTTCTCTGAGCTGGTGGTTCTGGCTAACACTGACAGGGGTGCTTGTTCCT
GTGCAGTGGGCATCAAGTACATGGGTGTGTTACGTACGTGCTCGTGCTGGGTGTTGCAG
CTGTCCATGCCTGGCACCTGCTTGGAGACCAGACTTTGTCCAATGTAGGTGCTGATGTCC
AGTGCTGCATGAGGCCGGCCTGTATGGGGCAGATGCGGATGTCACAGGGGGTCTGTGTGT
TCTGTCACTTGCTCGCCCGAGCAGTGGCTTTGCTGGTCATCCCGGTGTCCTGTACTTAC
TGTTCTTCTACGTCCACTTGATTCTAGTCTTCCGCTCTGGGCCCCACGACCAA

Sequence 138

CGACNCGCGTCCGGAAGGACCCTCTGAGCTATTTTGCGGCATACGGGAGCAGCAGCTCA
GGCTCCTCGGACGAGGAGGATAACATCGAGCCGGAGGAGACGAGTCGCAGAACCCCGGAT
CCGGCGAAGTCGGCGGGCGGCTGTAGGAACAAGGCGGAGAAGCGGCTCCCGGGACCTGAC
GAGCTGTTTAGGAGCGTGACTCGCCCGGCCCTTTCTACAATCCGCTCAACAAACAGATA
GACTGGGAGAGGCACGTGCTCAAGGCGCCTGAGGAGCCTCCAAAGGAATTCAAATATGG
AAGTCAAATTATGTACCACCTCCTGAGACCTACACCACTGAGAAGAAGCCTCCGCCTCA
GAGCTTTGACATGGCAATAAAATGGTCTAACATATATTGAGGACAATGGTGATGATGCTC
CACAGAATGCTAAAGAAAGCTAAGGCTTNTACCA

Sequence 139

CGACCACGCGTCCGGGCTGGCGAGCCCGGCTGAGGAGCCTCTGGGTGCGACTTACCGCC
GCGTCCGCTCCCGGTCCCTGGCCCCCTCAGCGGCATGGCGTGCGGGGCGACGCTGAAGCGG
CCCATGGAGTTCGAGGCGGCGCTGCTGAGCCCC

Sequence 140

CGTGTCCGGTGAATGGGAGCGGAACTCACAGGACACAATGAGCCGGGTCACTGATGGCCT
TGCTTTCTAAGAATCTCACAGTGAGCCCTAGAACTCTCTACGTGGTAACACTGTGTGCCT
TTTTAGAGAAGAGCCTATCTTAGATCTTAGCCTAACGTTGGGTCTATTGTGTTGCTGGA
GAGACCAGCACTGACATTCATCTCAAAGCACATGGTATGTTTGA CTCTATGTTGACTCA
ACTACCCATCTTGTACTGGGACACTCGCTTTTTTTTTTTTTTTTGGAGACGGAGTCTTGC
TCTGTACCCGGGCTGGAGTGCAGTGGCACGATCTCGGCTCGCGGCAGCCTCCGCCTCCCG
GGTTCAAGTGATTCTTCTGCCTCAGCCTCCTGAGCATGTGGAGCTCAGGCTGAAGGTGAT
GTGGCCGCCC

GTCCGATTGATTCTTCTATGATGCGTGTTTCATTATACAATACACATTCTCGGAAAGGCAG
AATTATTTGCTTTTATGATTGTTTTTTGTGACCTAAGAAACGGTTCTTCCCCCAATTTCC
TATCCCAGGCCAAAAAATATTCTCTCACGTTTTCTGTAAAGAGCTTTATAAGTTCAGCTT
TTATATTGAGGTCTGTGATTCATCTTGGATTATTATGTGTAGGTTGTAATAAGGAATCT
AGGTCCAGTTTTTCCATGTGGATATTCAGTTATTGTGGGGCCAATTGTTGAAAAGTCTCC
CCAAAGAAGTCTTTCTTATCAGAAAGATAAGATATATTAAGTGTATATCTAAGTCTG
GGTTCTCTTTCTGTTCTAATGGTTGATTTTTTATCCTTATGCCAGAACCACACTGTCA
TGATTGCTGTAGCTTTATAATAGTCTTGAATCAAGTTGCTTTTCAAGTTTTGATTTTTCA
AAATTGCTTTCCGTTATTCTAAGTCCTTGCATTTCTGCTAAAATTTAGAAGCAGCATGTC
TACCAAAGGAAAAAAAAAGCC

TCCGGCGGAAGAAGGTGCGTCCGCGGCTGATCGCGGAGCTGGCCCGCCGCGTGCGCGCCC
TGCGGGAGCAACTGAACAGGCCGCGCGACTCCAGCTCTACGCGGTGGACTACGAGACCT
TGACGCGGCCGTTCTCTGGACGCCGGCTGCCGGTCCGGGCCTGGGCCGACGTGCGCCGCG
AGAGCCGCTCTTGACGCTGCTCGGCCGCTCCCGCTCTTCGGCTGGGCCGCTGGTCA
CGCGCAAGTCTGGCTGTGGCAGCACGACGAGCCGTGCTACTGGCGCTCACGCGGGTGC
GGCCCGACTACACGGCGCAGGTGCGTGACCCCGTCCGCACCCCGCCCCTGCAGCCGCT
GGTCTCCCGCCTCCCTCCTCCCTGCAGGTTTGC GTGGCTGAGGCTCCACCTCCTGAC
CTCGGGGGCCGAGAGCTTTGCGAGCTGACCCCGCTTCTTCTGGCTTTGCAGAACTTGGAC
CACGGGAAGGCCTGGGGCATCTGACCTTCA

CCCGCGTCCGAGATCCTGTAGGTGAAGTTCTCCTGTGCTCCACAGCCACCCAGAGGAATT
CCAAAACCAGCAGTGGAGGACTTGGGGAGGACAGGAGGGAAAAACATGCGAGTTCATCAG
CTCTGTTTCCTTTATTAATAATTTCTGTAATTGGTGGTGGGAAATTGAAGAAATCAAGT
GATTGCATCAGCGCTGGAAAAAGCTGCCAGCACTTGGCAGTGGAAGAGAATATATGCTTT
ATACTGGACTTTTTGAAAAAGAGGCTGAGTTTGGCCAGATTGCCAGCAGCAATGGAAAA
ACTAATTAGGTGCCTTGCCTGTGAGCCAGACGCCAGCAGGGCTGTGGCGCATGGCTCCC
GCCGCCTCTGAAGAGGACACTTTCTAGTGAATTCAGTTCGTGCTACCCTTGAGCAGCCTG
TGCTACAGCAGGCACATTTGTGAATCTCCAGCCTGTGCCTGGCGTCNGAACTGTAGCTT
CCCAAAGAC

CGCGTCCGAGTAAATCTGTTCTGCACTAAATTATATCAAATAAATAAAATAATTATTT
CGTATACCATTCGTTATATACATTTCAAGTGTAAAAATAATGTCAATTTCTTATATTTTA
AGGAGAACTCTAGTTATTTTTATAAATCTAATTGACTTAATTTTGTGGGAATATAAAAGA
AGTGATTAAAAAACCTTTGGTTTAAAGTAGTTAATCCTGAAATCAAGCTCTGTAAATATTG
TGTAGGGATATGGAGAAATCCTCAAAAAGAAAGAGCTAAAGAAAAATGGCAGGGATGGCAT
CTTGGGAGTATAACTGAAAGTAGGAAGATGTGGATAGAAGAGTCTTATTTTAAATCACAG
GGCATATGTGCTATTTGAATTATTTTGACAAAAGTATAAAAAATATGGAATTATGCATTGT
GTGTGTGTGTGGTTTCATCTGTTTAAAGAAATATGTGATGGAGACTGTCCTATCATCAGGA
AATTATTCCAGT

GTGCACNCGCGTCCGCGGAGACACCGACCGCGGCGGCAGCAGCAGCAGCAGCAGCAGCGAGA

TABLE 1
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GGCAGAGGCGGCGGCGGCGGGGAGGACAGCACGGCCGAGGCTGCCAGAGGCGCCTCCTC
CACACCCCCCGCCGAGCAGCACCGGCGACAGATTTTTAAAAAATGGATTTGGCCAACC
ATGGACTTATTCTACTGCAACAGTTAAACGCTCAGCGAGAGTTTGGTTTCCTGTGTGACT
GCACGGTTGCAATCGGCGATGTATACTTCAAGGCACACAAATCAGTTCTTGCTTCATTCT
CCAATTACTTTAA

Sequence 146

CCACGCGTCCGATCCTCCCCAAGGCAGAGGTGTGCGTGCGGAACCATGTCCAGCCCTACA
TCCCATCCATCCTGGAGGCCCTGATGGTCCCCACCAGCCAGGGCTTCACTGAGGTGCGAG
ATGTCTTCTTCAAGGAGGTCACGGACATGAACCTGAACGTCATCAACGAGGGCGGCATTG
ACAAGCTGGGCGAGTACATGGAGAAGCTGTCCCGGCTGGCGTACCACCCCTGAAGATGC
AGAGCTGCTATGAGAAGATGGAGTCGCTGCGACTGGACGGGCTGCAGCAGCGATTTGATG
TGTCCAGCACGTCCGTGTTCAAGCAGCGAGCCAGATCCACATGCGGGAGCAAATGGACA
ATGCCGTGTATACGTTTCGAGACCCTCCTGCACCAGGAGCTGGGGAAGGGGCCCAAGG
AGGAGCTGTGCAAGTCCATCCAGCGGGTCTTGAGCGGGTGCTGAAGAAA

Sequence 147

NACCACGCGTCCGCCNCGCGTCCGCTTGACCCGGTGAAGAGCGTGCGTGTGCTGAGGCC
GGAGCCGCGAGACGGCTGTGGGGCCCTCGCACCCCGCCTGGGTGCCGCGCCTGCCCGGC
CCCCGCCNCGNCCNCGCCCCGNCNNGCTGCGGAGGGCTTGGACGCCAAGGAGGANCA
TGCCCTGGCGCTGGNCGGCACAGGCGCCTTCCCGNTGGACGTGGAGTAC

Sequence 148

TCCCAAGAGCTGCANGNNNCAGCCGCGACAGCAAGAACCNGNAGAGCCGGCAGACCGCGG
CGGCGGCGGCGNCGGAGGCAGGAGCAGCCTGGGCGGGACGCGAGGNGTCCGCGGGCGCAG
GAAGGCGAGCAAGAGATATNCTCTGAGAGCCAAGCAAAAGAACATTAANGGAAAGGGAAAG
GAGGAAANGAAGGCTGGATACCGGNGCAGTGAAGAAAGGCACTTCCAAGAGNTGGGGGCA
CTCAACTACGCCACNAGACTCTGACCGGGTGGCCCAATCAAGCCAATGAAGAAACCTATA
ACCCGGNTTAACCTNTNATTGGCCTGCCTTCTNNNTNGGGGGGTGGGGGCCCAAGCCNC
TTAACCCCCCAACCTTCNNTTCAAACCTATCCCAACCTTATTCNAAAANGAAGGGGANC
CTNAAGGATGGGGNTTTCCTCCCAAGGCNAAAAGGAAAAAAGGGGGCCCCCNNGGGAAG
CCTTCNTTCTTGGGAAAAACAAGGCAAAAAAATTGGAAGCCTGAAAACCCGGCTTCAA
AAAAAAGGGG

Sequence 149

GGCCGAAAGGGGGGCGAGGTGGTGGGGCCGCGCAAGCGGAGATGGAATGGGGCCCGGGCTC
AGACTGGTCACGGGGGAGGCTGCCGGCGTGACCGCGGGAAGGCGGGGCTGGGGCTCGG
CGGGAGGCCACCCCCACAGCCGCCCGGGAGGAGCGCGCCAGCAGCTGCTGGACGCGGT
GGAGCAGCGGCAGCGGCAGCTCCTGGACACCATCGCAGCCTGCGAGGAGATGTTACGGCA
GCTGGGCGCGCGGCGCCCGGAGCCGGCTGGTGGCGGGAACGTCTCANCCAAACCTGGAGC
G

Sequence 150

CACGCGTCCGGCCTGCTGTTNACCTGCGGGACCCCAGGAACCTGGACTTGTTTCTCAAAG
TGGTTCATGGAGATGTCACCCCTACGACCTGGTGCGGATGAGCTCGATGCAGCTGGCCC
CCCAGGAGCTGGCCCGCTGGCGGGACCAGGAGGAGAAAAGGGGCCTGAATATCATTGAGC
AGCAACAGAAGGAGCCGTGCAGACTTCCAGCCTNCAAAATGACCCACAAGGGCGAAGTGG
AGATTACGCGGGACATGGACCAGACACTGACCCTGGAGGATCTGGTGGGACCGCAGATGT
TCATGGACTGCAGCCACAGGCCCTGCCCATCGCATCAGAGGACACCACGGGGCAAGCAT
GACCACCACTTCTTAGACCCCAACTGCCACATCTGCAAGGACTGG

Sequence 151

TTTTTCCTTAGAATCTTCGAGAAAAAGATGAAGGTATTATTCTCAGTTTCGAGATCAGGA
CTCCTCACCACCAGGCGGGGGCTTTAAGGTAGACACTACAGGGAATCTGATCTCAGGGTG
ATCCTCTCCCTTCACTTGCAAAAAGAGAGGAGCAGGTGGGCCACTGCTCTCTGAGATGT
TAACACCCCTCACACTCCACGGGCATGCTTTGTATTCTGCACACCGGTGTAGCTGCAGC
TCTGTGTGAATTCAGATCTCAAGAGAAATGTAAATCAAAGTATGAGTTTCTTTCTTCT

TABLE 1
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TGGGTGCCACAGTAGGAATGAAATGATGGGGACTTTTGGAAGCCCCTGGACTTGTGGCCC
CTGTAGAAGAGCAGCTTGGGCAGGGTGTGATGGCCATCTCTGTCTCTAGGGGCCCTGTGG
A

Sequence 152

TGGCGAGAGCGCTGGTGCCGAGTGAAAGATAACAAGCTCATTTTCCACAAGGACAGGACC
GACCTGAAGACCCATATTGTGTCTATTCCGCTCCGTGGCTGCGAGGTGATCCCGGGTTTG
GATTGTAAACATCCTCTGACGTTCCGGCTGCTGCGCAACGGCCAGGAGGTTGCAGTATTG
GAGGCATCTTCTTCTGAAGACATGGGCAGGTGGATTGGGGATTTTACTCGCAGAGACGGG
GATCGTCCACAGACCCGGAGGCTCTGCACTATGACTACATTGATGTGGAAGATGTCTGCA
ANGTGTCAATTCAGACAGGCCAAACAGACCTTTCTGTTTTTATGAACAGGGCGTGTATAT
CTGCTAACCCATATCTAGGGGGCACCTTCAACGGGTTATTGCCACCCAGCGGGACGGCA
CTTTAATATGACGATGTTTCCGTNCCATAAACCGGNTTGNTTAAAGGGTAAAA

Sequence 153

GTTTCGACCCACGGGCGTCCGCGGGACCGCCGTGGGNNNNACATACTATGCGNACAGGCGC
GTTGNACACAAANGGCCATTCTGTAGCCTCACACTTGACTACACATGGGGGANTCACT
CGGATTCGGNTCTCCACGTGGNNGNTCTTTGTTCTGTACTCTACGTAGCTTTGGCTTTTG
TTTTCTCGTCGCAACAGGGCATGAGACTTCGTGACCTTNGGGGTCTGTATAGTCTTTGA
CTTACTACGTGTAGGTCTCAATACAAAGTGGGANATANTCATATCCGTCCGCGAAAAGTA
ATTCTTGAAAAATTTACCTTGTCTCCCGCNTTATGAAACGTGAACTAAGTAACTCACT
TTGCCCCTGGGGCGCCTCTNTTAAACANTGTTCTTTGNCGAAATCATATAACCTTCAA
CTGAAAACAATGTGGTCAACAACTGACTATGGAGGTCTTAGGCTCNGTCTCTAAGATCT
TTAACCTTGTTTATCGGCGCGTGCGGCGTNGTCCGAACGAAGAGACTATAACCCGCACTA
TAACNAAAACCTTTTTTAAATCCACACCTCGTGAGGGANGGGCCCTAAGACTGAACT
GTAGTAAGTCCTATTGATTTGCGTAGGAGGANTTAGGAAA

Sequence 154

NCGCGTCCGATAGTCTACCAGCCTTACCTGGTTGATTACACTTGTAAGAAAGATTAAA
AGCAGGCCAGTGACTCTGGTCTGCTTGAACATGTGAATGTAGTGGTTTGAGCAATCTGGA
GTTTGCCCTAGTGTCAAATTCAGACTGTCCATAGTGTCCAAAACCTGAGGCAGACACTA
ATGTTAACCCCCAGCACCCCGTGATTGGAACAAACCTAAATACGTATTGGGAACTTAAT
AGCAATTTTAAGCATTCTGATAGATTTTTTGTAGGGATGGGGTCATGCCATGTGGCCAG
GCTGGTCTGAAAACCTCTGGCCTCAAGTGATCTCAAGCTTTGGCCTTCTAAAGTGTGGGA
TTACAAGGTGTGAGGCATTGCACCTGGCTTAGCCGTCTTGATTTGACATTGTAATGAAAA
AGTGTGAGTCTTATTCTACCAGGGGCCCTTTTTTGTCTCTTGAAAAATNGAATAACCANG
GGAAGGGGGAA

Sequence 155

CCNCGCGTCCGTCCATCACAGCCTCCGAAGGTGCTGGGATTACACGGCATAAGCCACTGT
GCCAGCCTGTTTTTAATAATGATATTAAGTGGGTTTGGTTCATGTGTTATTAATCAGTG
TTAATAATCGTACTTTTTTTTTTTTTTAAAAGAAACCATGGGTATTCTAAAATCAGGAG
TCCAAATAAAAGAAAGTTCTCGGCTGTGCGTGGTGGCTAACACCTTGATGCCCGCACT
TTGGGG

Sequence 156

CGCGTCCGAAAGGAGTCGCGCCGCGCGCCGCCCCCTCCCTCCGGTGGGCCCGGGAGGT
AGAGAAAGTCAGTGCCACAGCCCGACCGCGCTGCTCTGAGCCCTGGGCACGCGGAACGGG
AGGGAGTCTGAGGGTTGGGGACCGTCTGTGAGGGAGGGGAACAGCCGCTCGAGCCTGGGG
CGGGCGGACCGGACTGGGGCCGGGGTAGGCTCTGGAAGGGCCCGGGAGAGAGGTGGCGT
TGGTCAGAACCTGAGAAACAGCCGAGAGGTTTTCCACCGAGGCCCGCGCTTGAGGGATCT
GAAGAGGTTCTAGAAGAGGGTGTCCCTCTTTGGGGGTCTCACCAGAAGAGGTTCTT
GGGGGTGCGCCTTCTGAGGAGGCTGCGGCTAACAGGGCCAGAACTGCCATTGGATGTCC
AGAATCCCCTGTAGTTGATAATGTTGGGAATAAAGCTCTGCACTTTCTTTTGGCATTCA
AGTTGTTAAAAACAAATAGGA

Sequence 157

TABLE 1
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CGCGTCCGGGTGTNAGGCCATGGGGCAGCCCTGGGCGGCTGGGAAGCACGGACGGGGCG
CCCGCGCAGCTGCCTCTCGTGCTCACCGCGCTGTGGGCCGCGGCCGTGGGCCTGGAGCTG
GCTTACGTGCTGGTGCTCGGTCCCGGGCCGCGCCGCTGGGACCCCTGGCCCGGGCCTTG
CAAGCTGGCGCTGGCCGCCTTCCAGCTGCTCAACCTGCTGGGCAACGTGGGGCTCTTCCT
GCGCTCGGATCCCAGCATCCGTGGCGTGATGCTGGCCGCGCGGTCTGGGCCAGGGCTG
GGCTTACTGCTACCAATGCCAAAGCCAGGTGCCGCCACGCAGCGGACACTGCTCTGCCTG
CCGCGTCTGCATCCTGCGTCGGGACCACCACTGCCGCCTGCTGGGCCGNTGCGTGGGCTT
NGGCAACTACCGGCCCTTC

Sequence 158

CGACCACGCGTCCGGGGACTCAGGCATGCACCACCACGCCCAGCTAATTTTTGTATTTTT
AGTAGAGACAGGGTTTCTCCATGTTGGCCAGGCTGGTCTCGAACTCCTGACATTCCGTGA
TCCACCCGCCTCGGCCTTCCAAAGTGCTGGGATTACAGGTGTGAGCCACTGTGCCCAGCC
CCTTCTGTTGAGTAAAAGGAAGAACTTCAGGGTAAGACACTGTACAGTGCCCAGCATCT
GGAGAGCCGCCAGCATTACCCCTGCCTTAGGAGGTAGTCGTCTCCTCATCACTACAAGGT
ATTGAAGCCTGAGGGCCCTGGGCAGGACGATAGAGTGAGATTGCCCTGGGGACTCAGGA
AAGGAAACATGCCGTATTTNTAGGGAAGGAGCTGCTGCTGCCTCTCAGTGA CTCTGGTTC
CAGGAGGGAAGAGCCGAGAGCTAGGGTTCCCTTTCATAGGGAGAAACCCAGCAGGGTTTG
GGGTGTTCT

Sequence 159

ACCACGCGTCCGAAAGGAGTCGCGCCGCGCCGCGCCGCCCTCCCTCCGGTGGGCCCGGG
AGGTAGAGAAAGTCAGTGCCACAGCCGACCGCGCTGCTCTGAGCCCTGGGCACGCGGAA
CGGGAGGGGAGTCTGAGGGTTGGGGACGTCTGTGAGGGAGGGGAACAGCCCGCTCGAGCCT
GGGGCGGCGGACCGGACTGGGGCCGGGGTAGGCTCTGGAAAGGGCCCGGGAGAGAGGTGG
CGTTGGTCAGAACCTGAGAAACAGCCGAGAGGTTTTCCACCCGAGGCCCGCGCTTGAGGG
ATCTGAAAGAGGTTTCTTAGAAAAAGGGGTGTTTCTCTTTTCGGGGGGTCCCTCACCAA
GAAGAAGGTTCTTTGGGGGGTCCGCCCTTNTGAGGGAGGCTTGCGGNTTAACAGGGCCAA
AAAANTTGCCATGGGATGTCCAAGAATCCCTGTAAATTTGATTAAATGGTGGGGAAATAA
AGCTTTGCAACTTTTTTTGCGNATTTAATTTGGTTAAAAACA

Sequence 160

TCCGCTCCCCTGTTTTCTTCCTTTTTCTTTTTGCTTGTATGCACAACGGTAGGACTTACT
TCGTAAGAAACAAAATGCCAGTATTTTCTTAAGCCATGATGTGAAACCAATGACCCTGTG
ACCACATGGCACAGAACTAAATTTTGGTCCCATGGCTGAACTTGAGGGTGACTAAAA
GTAATGCCTGTGAAACATGATATCTATCTGGGATGGCCATTGATCTCTAAAAGGAATTT
TGTNCACTCCACAGAACTCCTATCTATAGTAAAATTTGATTTTTT

Sequence 161

CGTCCGGAAAAATATTAACAACCTCATTTTAAGATTCAAATTAAC TAATTCCTGCATATA
TGACATTCCTTACATAAGCGAACACTAAACAAAAATGGCTAGAAATGTCTTTTTCTTTCT
TTTCTCTCTTTGTTGTTTAAGGTATTAAGCACCGAATTATTACATGAGACTGGCAGATAG
CTATTAATCCTCTTACAGATTTGAGAAAGTTGATTCTCAAATATTTATGCACCTTCTCCT
TCATTGTTTTCTTAAATCTGTCCTCTTAAAAAGCTTCTTAAGAGCTCAGTTAATGCTTT
TGA CTTAACTAGGAGAAAAAGGCATGATAATACAGGCAAGATGGCATTGTTAGCAATTCT
GGTAGGTGGTTTTGGAATGAATCCTAAGAGGCAAGGGGATCTTAAGGACAAGGAAGAGAA
GAGAGAGGGGGNGGGATCCCTTTGATCTCTTTCTCTGGNAATCTTAAATGCNTAATTTTA
CTAAACATGTTCTCAATTCATT CATAT

Sequence 162

CCCCGCGTCCGGATTAATGAGTGTATGCCTAGCTCTTTCTCCAGTTTACTTTTAGACCAT
ATTGTTGTTTGTGTTTGAATATCATTCCCTTAGGCTATGTTGAGAGTAGAGTGGCTTCCCAT
TAGGAGAACTAATTTAGGGCATGTCTTTTGTGAATCCCGTCAGCATATTTAACAAATTC
CCAATTCTAGATAATTTCTTTTATTTCTCTAGTACCCTTTGCCAGGGGCTCTACACATC
AAAGGTGTTTCATGAAGTATTTGTCAAAGGAAAGAACAGTAATGACACCTAACACATAATG
AGTGATTAGTATGTTCCAGGCATTGCGTGAGCTATTTACTGTGAGTGATTTAATGTTATC

TABLE 1

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TTCCAGCAGACCTCTGAGGTAGGGTACTAGTATGATCCCCATTTCTGACATGAGGAAAC
TGACACTAAGGGACATAAAATAAGTTTTTGAAGTCACAAAGTGAATAAAAGGAAGACCAG
GGTTTAAATTGGAAGCCATA

Sequence 163

TAGACTTTTGCAGTGTTAAACACAGCTTCCTTAACTCTTAGAACTGGAAGTTGTAGAGCT
CTCCTTTTGGTGCCTTTCCAGCCTTTATACACACTATTGTAGCTTTCTTAGGTTTGATAG
GTAGCGTTTCAAGTAGTTTAGCTGAGACAGNGAATGTATTAGGTTCAACATGACCTTGTG
TTTTATTTGTGTTTGCCAACAGGATGCCTTATTTGTTTGAGAAAAAGATGTACTAGTGTC
ATTCTAAACTATCTCCTTTTTTAGGATTCTAAAGAAGTTAATCATCATCCTTTTGTAT
TTTACCACCATTTAGTGCCTTAAATCCTATCAAGAAAGCAGTGTTACTGCTCAATGCCCA
ATAAGACACGCGGATATTGCTATTGCTTGTCTTTGAGTTAACAGGCCNACTTTTTATAC
TTAAACCTCA

Sequence 164

GCCCCGAAGTCCCACTGTCCCTGCCGAGGCGCGCGCGCTCCCTGTGCCCTTGACCAC
GCCAGCCTCCGCCGAGGAGGCGATACCCCTCCCCGCGTCCCTCCGACAGCGAGCGGTCCGC
GTCCAGCGTGGAGGGGGCCCGAGGGGCTCTGTACGCGCGCTGGCCCCAGCGAGGCCCG
GCCGGCCCCGGGCCCGGGGCGAGATTGGGGGCTGTGCTGTGCGCATCGCCCCAGCGCAG
GAAACCGCCGCCACCTGACCCCGCCACCAAGCCTAAGGTGTCCTGGATCCACGGCAAGCA
CAGCGCCGCTGCAGCTGGCCGTGCGCCCTCACCACCGCCGCGCAGGCTCCGAGGCGCGCC
CAGCCCCAGCAAGAGGAAACGGACGCCCAGCGAACAATCGGCGCATACGGTCGAACACN
GGAAGCCCCCGGACCCGGACCCAACGCCGGGGCCCCCG

Sequence 165

AGTCCGCCCCACGCGTCCGGTGAGTTTAGCGCTGCTGTCCGGATGGGTTGGTAGCAGACA
GGGTGGAGTAGGGTTAAGCACACTGGTCACCTTAGGATTGGTTTCTGGTGCTGGAGAAT
GGTAGGACACAGGCCTTGGAAGGTTTTTGTAGTGAAATATTACTCAGCGTTTTCTGC
AGACCTCGCGGGCAATGCCGCTTCTAATTTATCCAGGCCTTCTTCTGTAGGGAGGGCCT
GTTAAGAGTTGAGCAGCCCGATTCTGAACCCCTCTAAAAAGCTGTGGCTGATTGGTGGC
TTTTTTTTTCTTGGAGAGGGGGGTGTCAAAGATTCTTTAAAATCGTTAGTGATGTGGT
CTCGCTTA

Sequence 166

ACGCGTCCNAAATGTGTGGTACATGGAATATTTTTATTATGCTTATTTCTGATTGCCA
GGTAGATGGCCAGCCTGACATTCAAAATTATTTATCAGCCCCCTAAATGTTAATATTTCC
CAAATATTTAAATCAGTAGAAGACATTTTACTATTAAGAATAAAAAGTTATAATATAA
AATGGATTAATGCCAGATTATATGCTAAACAAGTCCTTTAAATTTTTAACTTAATATTT
TTAACAGATTTTTTTTTTGTAGATGCAGTTTTACTCTTGTGCCCAGGCTGGAGTGCAATG
GCACAATCTTGGCTCACTGCAACCACCACCTCCCGGGTTCATGCGATTCTCCTGC

Sequence 167

CCGTCCGCGAGGTTAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCCATCTCTA
CTAAAAATACAAAAAAATTAGCCAGACATGGTGGCAGCCTCCTGTAGTCCCAGCTACTC
GGGAGGCTGAGGCAGGAGAAGGGCATGAACCTGGCAGGCGGAGCTTGCAAGTGAAGCCAAAG
ATGGCGTCACTGCACTCCAGCCTGAGGGACAGAGCAAGACTCTGTCTCAAAAAAAGTGA
AAAAAAGTGGCACAGATCAATTATAAATCACTGCTTCAAGGCCAGTGCTCTCACTTTGT
ACATTAATAATCTCAGGCCCAATAAGATAAGTGATATGTCAACGTATGTTCACTTTGGT
CTTTACATGGCAGCTATAGTATACCGGAATATTATAAGCTCAGATCGTCATAGCTACATA
ACTCCTTAGTTGGGAAGANACGCCGTAAATGCCCATCAAGANTAGCAAGTCTTGCAATT
GACT

Sequence 168

CGCGTCCNGGTAACCTGAATAAGGATTATGTGCCCCACCCTTACTCTCATTCTGCTTCC
TCTTGGGCTCAAACAGGGTATGAGTATGAAGATTTTGCCTTTAGTTCCTGAACCTGAACCT
GCTTGCTATCCCTTCTCCTCCCCACCACTACCTTATTCTTCTGCTCCAAATTGCCAC
TTTGTGTTGAGGCTTCCTCCCTACCTTATTATTCTGAAGGAAGTAGAGATCTTGCTCT

TABLE 1
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GAAACCCCTCCTAAGAACTGCCAGGGACAAGATAAATTACAAACAATTCATGGGAGTT
TACTACCTAAGTTGCTTCTAGGGCATATGTATACCATACTAGTAGTCTAGATTTCGG

Sequence 169

AGGGAGTCGCCCCCGCGTCCGGACAGGATCTATGGATGGAAGAAGATGAAAAACAAACACA
CAGCCATAAAGGTAATTGTTTCTGGCCAACATCTTCTACTGATGCTTTGTTTGTATTGT
ATGTTGCTGTTTATATTTTCTCAAACCTGAGGCTCTATTTTATGAAATGTTGAATATAAA
TACATTGTATTTAACTTGAAAAATTCCTGGAAATATACCTGATAATTACCACCTGAGGAA
TCGNTTTATTTTATGAAAGTAACAGCGTGATGAATACTGTAATTACAAAAGAAAATTAGT
ACTCACTGACTTATACCCCTGTTTTTTTTTTTTTTGGTTTGGTTTTTTTGGTTTTGN
TTTAGGNGACA

Sequence 170

GGAGTCGNCCCACGCGTCCGGCTGGCCAGCAGACCCTGCAGCAGTCATTGGTGGTTCTGT
CTTCCCTAACCCCTTATGNGCTGGAGGACAGAGGAGCCACCTCTTCTCACTGGTTGATAC
TCTGTTCTAAGACCTCAGGTTACCCAGTGTAGCCTGCTGTGACCCTTCTGCTTCATTTT
CTGCCAAGTGATACAGAACCTTCGTTCTGCTGCTTTGGGGACAGGTGATCCTAGCCCCAG
CTTAGGGCCAGTGCTCTGTGCCACTCTGGAGAAATAGGGAAAAGATAGGGGTGGCTCAGT
ACAGCAGCCCTGTGAAAGTCAAGGCCAGAGCTTTTCTTTTAAATTTTTTATTATTATT
ATTATTATT

Sequence 171

TTTAGGGAGCCGACCCACGCGTCCGCTTGGCAAACCTCCGGGGACTGTCAGAGGAGGAGA
GGAGCGAGAAGGCTATGCTTCGCTCCCGCATTGAAGAGCAGTCCCAGCTCATCTGCATCC
TGAAGCGGAGGTGAGATGAGGCCCTGGAGCGCTGCCAGATCCTAGAGCTGCTCAATGCAG
AGCTGGAGGAGAAGATGATGCAGGAGGCTGAGAAGCTCAAGGCCAGGGTGAGTACAGTC
GGAACTAGAGGAACGCTTTATGACCCTAGCAGCCAACCACGAGTTGATGCTCCGCTTCA
AGGATGAATACAAGAGTGAGAACATCAAGCTGAGGGAGGAGAATGAGAAGCTGAGGCTGG
AGAATAGCAGCCTCT

Sequence 172

CCACGCGTCCGCTTAGCCGCTGCCAGAGTTCCATATGTTCTGGAACCCTTGACTCCTAGA
GTTTCAAGAACCCAGCCAACCTTGCAAGTTTTCAGAATGTTCAAGAACTTCTGACACTCAGAG
TTGCAGAACCTCCTGGTCCCTGCAGATTCTGGAAATCAGAATATGGTGGTTGNAAGAA
TCTTGTGGCTGGGCGTGGTGGCTCACGCCTGTAATCCCAGCACTCTGGGAGGCCGAGGCG
GGCAGATCGCCTGAGGTGAGGAGTTTGAAGCCAGCCTGGCCAACATGGCGAAATCCCGTC
TCTACTGAAGATAACAAAAATTAGCCGGTCATGGTGGCGCCCGTGCCTGTAATCCCAGCT
CGGCAGGGCCGAGGCAGGAGATCGCTTGAACCCGGGAGGCAAGAGGTTTGCAAGTGAGC
CNAAAGATCGAGCCACTGCACTCCACCTGGGTGACCAGAGTCTTAAAAAAAAAAAAAA
AAGG

Sequence 173

CGTNCGGTGAATATTCAGTAAGCTAATTAATTTGTAAGTAAGATTTCCTTATTAATAA
AACTATTAATAAAGANGAAGCCCGTTNAAATAATNATTAGAGNNGGAAAAAAGAAGATG
ACTATCNAATTACAGCACTTTTTTTCAGCTATACATAAAGGCCTTTTCANT

Sequence 174

CGTCCGGTGACCCATTAAGTATATTTTCGTGACCCANAGTTTGAAAGAGATTATAGGTGTA
GCTTTGCTAGTTTGTAATTGATATAGAACAGTGACTATCAGGGAAGNTGAAGAACGGCNA
ATTGAATGTAAATCATGTCTGGATGGTGAAGATTCTAAGAATGCANCTAGGGAAAGGGCT
GCAAAAAGAAGGTGGCAGACTAATGTAGAATGGTGCAACCAGATGAAGACATGGGTGGCT
TTAGGAATTCAAAAGTGGCCGTGAAGGCCAGGCACGGTGGCCACGCCTGTAATNCTAGC
ACTTTGGGAGGCCAAGGTGGGTGGATTGCTGAGCTCGGGAGTTCGAGACCAGCCTGACCA
ACCAGGTGAAACACCATCCCTACAAAACAT

Sequence 175

GGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG
TGCGGGAGATGCCGTGCGGACTGGGGCCACNTTGAAGCCGCCGCGNCTCGTCCCCGCGCTTC

TABLE 1
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TGTGGGAAGGATGTGCGCGCGGATGGCCGGTCGCACAACAGCGGCCCTCGGGGGCCCTA
CGGCCCCTGGCTCTGCCTCCTGGTGGCCCTCGCCCTGGACGTCGTGAGAGTGGACTGTGG
CCAGGCTCCCCTGGACCCTGTC

Sequence 176

GAGCTGGCTGGTGTGTTGAGCTGTGGCAGAAGCACCTGGGGCTCCAGGGAAGCANGCTGGG
AACTGCAGGACCTTGCTCAGCCAGGAGCACTTCCCCCTCCTTGAGGCAGGAATACTGAGG
TGCTCCCCACAGATGGAGAANGTGGAGAGGAGGATGGGCCTCAGGAGCATCTCAAGCCC
CAGTAGCAGGANAAAGAAAGAAAGAGATGCCTGGTTTTACAGACTGGTTCCTGTGGCTG
GGATGACTGCATCCTTTTTTTTTTTTTTTGAGACGGAGTTTTGCCTTTGTGCGCCAGG
CTGGAGTGCAATGGGGTGATCTCGGATCACCGGAACCTCCGCCTCCNGGATTCAAGCAAT
TNTCCGCTCAGCCTCCCGAGTAGCTGGGATTACAGGCACGCACCTCCACCGTNCGGCT
AATTTGTA

Sequence 177

CCTTGTNAGGGGACACAAAGAAAAATTGAATAAACTGTATGATTTAAAAGATTATCGGGA
GAGTTACCTCCCGATATAAAAGGAAGGATTTACAGAATGTGACCTAAGGTCTGGCGTAA
TGTGCACCGGAACCGAGAAGGCCCGGATTGTCATGGACGATGAGATACACCGGAATATCA
TGGACATATTCTTTAAAGCGCCCTTTATCTTCAAATGCGGCACGGAACCGGAGGCTTTG
AAGAACTCAAGGAAGCGCGGCACGATACCGCCGCAATAAACACGCCGCCAAATGTCCCG
AGATTGAGCGCCAGATTGCCGCCAAAACGGCCCATATGACGCAAAACAGCGACAATGCG
CGGCGGCAATCGGTGCAAGCTGTCAGCCAGCGCCGCGTTGCGTAATATCTT

Sequence 178

CACGCGTCCGACCGGAAATGCTGACCTGACCTTTGACCAAGTACGNGCGGTGGGGGGGGG
GGACAAAGTGGGGTGGTGGTATTAAGTGGCTCCGGTGGGTCTTCAAGCCCCAGGAACCCTC
CAAGGGGGAAACAAATGGAGGGGCCCTAACGCAAGAAGCTTCAATCGGTCCCTTGACTGG
GCTTCTTTGCGGTGGGTGGTGGGTATGGCCCTGGGCTGGCCTTTNCCTNAATCTTTCCTT
CCCTNCCTGGGGGCAATCTGGCTGGGTGGCCAAGTGGCTTGCCCCGGAACAACCTTTGGC
TGGCTGGCTTACGGTCAANGGGTGGCCCTGGCTTGCCCCAAGAACAAAGGTGGCNTTGC
TTTGCCCCCGAAGGGCCCCCTNGTAATTGCCCGGCCCGGGCCAAAAAGCCAAGCCACC
TTCAAGGGTGGTTTTCCCAAGCATTTTTAATTGCCCCCCCAAGCAACCCTTAATTGCCCAA
CCCTTGTTCTTTCCCGGCCCAAAAGAACCCCNAAACCCCCCCAACCCAAGCTTATTGGA
ATTTTCCCAATGGGGGCCCCCTTGCCCTTACAAAACCGGGGGTTTACCCCTTTGGGG
AGGGGAATTAACCCCTGGGGAAGGAAACCGGTTTTTGACCANGGGGAAGGTAAGGCTTT
AAANCCTTGGGGTNGGGGCCCAAAAGGGCTTCCCCTAAATTGTTAACCCCTTGGCNTT
TT

Sequence 179

CGTCCGGAAGAACTGTTTCATCTACTCACTGTAGTGCCCTCCTTGAAATGTGTGTTTGTCA
TTCAACTAACAATATTTGGGGATCCCTGTAGTAAACACTGTATGAATTTACACAGTCTG
GCCATCAAGAAAGATCACGGAGTATATTCTAGATGGGGAGGCTACTAAGTGAATAGGAAT
CACCACGCTGGGCTGTTTATTAGGTACAGTAATAAACATAAGTACTGGTTGCAAAANAAA
ANAANAAAAANAAAAA

Sequence 180

CCNCCGCGTCCGAAAAGACAAGACAGCATACTGTATTTTCTCTTAAATTCATGTGTA
CAATTAAATGATTGTTNTCTGAGAATAAGTTAGCTTCAGCTTTCTAATCGATGTGTTCCC
ACATCTACAAATTGATATGAAAAATTATTTGAAATGCACACTGCAAAATGGTGAGAATA
TGAAAGTTACCTGGGAATTAATCAGAACTGTCTCCATATGACTATTTCCAAGTCACAA
CATACTTTCTTAATAGCAATGGTTATATATGTGGCCAGATAGTATTCAGTTTCACAGTA
ATGTCTCGGTCACATAAAGATAGCANAGCATAGACATAGTACAACAATTTATTATTTCTG
CTGATTGCCAAATGTGCATAAACTATAAAGATATATTTTCCAGCCAGGTGACAGAGAC
CCTGTCTCCNTTTTNAAAANCTTCATGNTAAAGGTGCGGCCGCTAGACTAG

Sequence 181

CGCGTCCGCTAATCAACTTTTAAAAATAATGTTTTACGGCCGGGCGCGGTGGCTCACGCC

TABLE 1
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TGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCACGAGGTCAGGGAGATCGAGA
CCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCCGGC
GTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGATTTTTTATTTTTGAACT
TTTTACAGAGAAGGGGGGTCTCCCTATGTTGCCAGGTTGGTCTCAAACGTTTGGGCTC
AAGTGATCCTTCTCACCAAGAGTGCTGGGGATTATAGGCATGAGCTGCTGTGACCGGCC
AAAATCAAATTTCAAACCTAAAAAATTCTCAGATAATTAATGAACCTACGTGAATTAAT
CTACAAATTCAGTTTGAAAAACACTAAAGATAAACAAGTCAATGTGGGAACTTAA
AAGTANGTTGGTATTTAGGTTATTGGTTAAATGGGGGACCGACTGGCATACACAGTCCT
AAATATTTAAGTCTTAAG

Sequence 182

CCCTATCTTNCGGTACTGGTGGGCCAAATTCCTGGGACCAGGTCAAGGTGGGCTGCCTCA
GTAAGAAGGAAGGACTGGAGAGTGCCATTTTCAAGAGGAGCAGGCTGGTGGGGGCCAGCCA
GAAAGTAGTTCCCTTTGGGGGGAAGATGTTGGACCTTTATTATTTGTGGTAACCAGCCGA
GGCTGGTTGTCAGGACAGCAGGTGAGCCACTTTAGGGAAGAAAGTGCAGGGGTGGGTGGA
TGCCAGATTACCAAGGCCAGCCACCCTGATGGGGTAGGGTCTGGTTATCTGTGTTCAAG
AAGCAAATCCCACCCAGCCCCAGCACTAGCTCTCTATGTATGTATTTTCCCTGTACAAT
GTTTTATAAAGAGATCATTATTTAAAAAANA

Sequence 183

TCGTCCATTTACCTCACTTATGGGGTAAAAGGTCACTTCAAGTAAGGTTAAAGGTTTTCC
CTGGCAAAGGACCTAACCAGAGCCCCNAAGGGGGGAAAAAAGGAGGTCACTTTGGGGA
GGTACCATGGCCNTTTTGGTCTGGCCNTTGGGCNTCTTCAACAACAAGGAATATTT
ACCAGGCCCTTTTGGAGGCCTTTGGATAATTTCTTAAGAAATTTGGTTACCAGGAAGAAT
TAGGCTTONTNGNAAAAAGGAAAAATTAGGACCTAGGAAAGGGAATTAAGGGGGNAA
GGGGAATCAATTAAGCNTTAATGGAAAGGGGGTTTTACTTCTGGCAATCAAGAACCGGC
TTTTCNTAAGTTTCNTAATGGAATTTAAACCGGTNCCTAATANGGGCTNGTAAANGGG
GTTCTCNTGGCGGTGGNAAACCACCTTCTTTTTCTTNGGGCCCTTCCCTTTTCTGNCC
CCCAATTTNCCCTTCTTTNAAACCCTTCAAAGTTTGCCCTTGAGGGTTTTTAATTAAT
CCCCCTTGGTGGCCANTTCCCTTGGGGGGCCAATTGGGTTTCAATTTCCANCAATTANTG
GNAAAAACCAANTCCAAGGGGAAGGGACCCCTTNGGGCTTAANTTTTTCTTTTAAAT
CTTCTGGGAATTTTNGGATNGGGGGAAAAAATAAATTAAATTCCTTTTGGGGCG
CCCTTGGCCAAGTNGGGGGGAAAAATAATTTNGGNTTTTNGGGGGGGGGNTTTGGGGA
ATANCCTTACCAAGGAACCCCTTCTTGGATNCCTTTGGGGGGTCTTTTCAAAAAAT

Sequence 184

GCGTCCGGTTGTAGTTTCCCTTCCATTCTCTTGGTGGCCCTGGAAGCTTCTAGGCACAA
GTGTGCCACCCTGATTATTCCNACCACTCCATCCAACCTTTCTCTCTGTGGGTGTCTG
CACCACAAGCTGCCTACCCTCCAGGTGCCTCAATGGTCCGGCCACCAGTTGTGCCTCGGC
GCCCCCGGCCACATCAGCAAGTGTGAGGACGGCTCCACCCAGGTGCCACGCACGGTG
CCTCATACCCAGAGAGTAGCCAACATTGTTACTCAGACCACAGGACCCAGTGGGGTAGGA
TGCTGTACACCAGGCCGGCGCTCCTGCCGTGCAAATGTTCTCAAGCAGCACATAAGCA
CCTATCGGGTCCAGGAGCCGGCTTGTGCACATNCCAGGACAGGAGCCCTGACCGCGTCC
ATGCTGGCTGCGGCGCCCTGCATGAGCAAAAGCAGATGATTGGGGAGCGTCTTACCCC
CTTATCCATGATGTCCACA

Sequence 185

GTGCCCCGCGTCCGGGCATTTGTATTTTCAACAATTGTTCTCAAATTTAGAAAAGAGAC
ATCGCAAGATGGTGAAATAGGAAGCCCTGGGCCCTCCTTCCCTCCACAAACACACTGATT
TGACAACAGTTCATGGACAGATTCCCTTTATAAGAAACCAAGAACTGTTAAGAGGCTCT
TATACCCAGGTGAGTGCAAATCATCCACATCAAAGATAGCTGGGAAGTTCAAGACACC
TTCTTTCCGTAATTTCTAACTGGCACAGTACTATATGATTGAGATGAATCTCCCCACAT
CCAAGCTTCTGCTGGGGAGGAGAGGGGAGGGTATACCATTATGTCCAATGTTCCAACCTC
CTCTAGGAGCTACCCAGGTAGGAGGTGGGTCCAGCTCTGTCAGGCTTGTCTTAAGAGCAC
TGATTGAGGGTCTGGTATTCTCTAAGTGGCCAGGACCATAAGAGCAGTGGATGGTGCTG

TABLE 1
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GGGNTNNGNNGTGGGTTACCCATAACCCCTGGTTTTTGG

Sequence 186

TCCGAAGCAGTGAAAATAGTGTTTGACTCCATTGACAACCTAGAGGCGGCTCCTCATGAT
ATCGGCTACGTCAAACAGGCCATGTTCCACTATTTCCAGGTGCCAGATCGGCTAGGGATA
CTCACTCACCTGTATAGGGACTTTGATAAATGCACGTTTGCTGGGTTTTGCCGAAAAATT
GCAGAATGTGCTCANCAGGGAGACCCCTTTCCCGCTATATCTTCAGGAAGGCTGGGGAG
ATGCTGGGCAGACACATCGTAGCAGTGTTGCCGAGATTGACCCGGTCTTGTTCCAGGGC
AAGATTGGAATCCCCATCCTGTGCGTGGGCTCTGTGTGGGAAGAGCTGGGAGCTGCTGAA
GGAAGGGTTTTCTTCTGGCGCTGACCCAGGGCAGAGAGATCCAGGCTCAAACTTCTTCT
CCAGCTTCACCCTGATGAAGCTGAGGCACTCCTCCGCTCTGGGTGGGGCCAGGCCTAAGG
GGCCAG

Sequence 187

CGTCCGCGTCGCTCCCTGCTCGGGGTCAGCTAGTGTCGCTCTGCTCGGCCGCGGGCTC
CCGGAGGACTGCAGGCAGGATGACCGCAAAAACACGGGTGATTGGTGAATGGAAGTTGCT
ATGGGCCTCTAAGGGCCATCCCAAGCCCAACCCAACGTTAAACGGTCCACAATCCACCAA
GGAAGTCAAGCTTTTGACACAACTGCTGAAAAGCTGGGAGGGTTTCTTCTGAAAGAAAG
TTTCTTTTTTCAACCCTGGGGGACACTGGTGCCCTTTCCACAAGCCAGGGAATTGGGTTT
ATGAAGCAAGCTTGGCTCTAAGGGGGGTGACCTCAAGATATTTGCTGGGGGGTTGTGAGG
TTTGGTGGTTCTTGGGAAGTGTGTCTCAAGCTTTGGGGGCCCTGGAAGTGTGCTTGAAGT
GCCCTCAGGCCTGTGCCCTTCTGGGGCCGGGGGTCTTGTGGGTGNATNCGCAAGCANGGA
AGCCTGGGGGCCATTGGTCCATTNAAGAAGGCACCCCGGGGCCAAACCTTGCTTGGCTAT
ANTATTCCAAGCCTGCTTCAACCCNTGGGCAGGCTTT

Sequence 188

TCGACCNCGCGTCCGGCTTCGACGCCTTCCCTAACATCGAGAAGGTGTCCAAGATCACGT
CTCCCGTGCTCATCATCCACGGCACGGAGGACGAGGTGATCGACTTCTCGCACGGGCTGG
CGCTCTACGAGCGCTGCCCAAGGCGGTGGAGCCGCTGTGGGTGGAGGGCGCCGGGCACA
ACGACATCGAGCTCTACAGCCAGTACCTGGAGCGCCTGCGTCGCTTCATCTCCAGGAGC
TGCCAGCCAGCGCGCCTAGCGGCGGCCCCAACCGGCCGGACCTCAGCAATAAGGCGGCC
CCCGGACCTCACCCGCGCGCGGCCGCCCAACCGGGGCTGCATGTGGACCCCCCGGGCGGC
CCAGGGGACCCCGCCCCGACCCAGGGGCTGTGGACGATGTACAGGCAACAGAGCTACCGC
CTAGCTTTCTTTTGAAGCAAGAAGAAAATACGTGAAAACGGGAAATTAAGATTTAA
AATTTTTTNNNNNTNANAAAAANNAAGTGCGGC

Sequence 189

CGCGTCCGAAGCCTTTTGTCTCAGAGAATTTATTGTCTGACAGCAGAGGCCGATGGTGG
GATCGACTGGCCCTTAATTTACACCAGCACTTGAAGCCGCTGGAACCCGACTATCAAGT
GCATCACAGAGGGGCTGGCGGATCCCGGAAGTCAGAACGGGACACCGNCTTTCACTGTAT
CAGCGAGCCGTGCGCCTGCGAGAGTCTCCGAGCTGTAAAAAGTTCAAGCACCTCTTCCAG
CAGCTCCCAGAAATGGGCTGTGCAAGATGTGAAACACGTGACCATCACAGGCAGGCTGTG
CCCACAGCGTGGGGATGTGCAAGTCTGTGTTTGTGATGGAGGCCCGGGGGAGGCCGCTG
ACCCACACAGGTCTGTGCTCTGTGGAGGAGCTGGCACTGGCCCATTACAGACGCAAGC
GGTTTTGACCAGGGGATTATGGCGAAAGGGTCCACCTTCAGCACCTTGTATGGCCTTC
TTNCTGTGGGGACATCATCTTCATNGGATGGGATTCCCGGATGTCTTCAGAAACGCCTGT
CANGCATTNCCCCTGG

Sequence 190

CNACACATGCGGAATCATAGGCCTGCAAAGCTCCTGCTATTCATAAATCTGCCATGC
CTTAGGCACTTCTTAACCTAGAATTCTGAGTGAAGGACAACAATAACTAATACTTTTGAT
TCAGGTATTACAAAGAAGTTAAGAGTTCATAAGGCACCTAAGTAAAGTCACATTGGTTAA
GAGTACATGTCTCCAGATACTCTTACATTTGCAAAGNAATTGCATTTCTGNATCTATGGT
CTGTAAATAAAATTGAAGAGTTGNGAGAATAAAAGCATGTTGTCTTTGATAAATTGTTTT
TACAAAACAGGCACAAGAGAGGCTTGAAGGGTCTTGCTATCTTTTAACCTATTTTATAA
TCTTTGCTGCATAAGAAACAAATATGCTTATTTACATTCTATACTTAAACATATTATCAA

TABLE 1
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ACTTTTATTCTGAAGATAATACACATGAAGGCTTTAACTTTAATCTTCAATATATTTTT
TAATCTCCCTGATGAATTAGGGAAATAAATATTGGG

Sequence 191

TCTCCCCCTTCACCCTCCTTTTTTTTTTTTTTTGTTTTTCTTAAAAGCATTTAGCTGG
GTGCAGTGACACATGCTTGTAAATCCCAGCTATTGAGGAGGCTGAGGTAGGAGGATTGCTT
GAGTCCAGGAATTTGAGGCCAGCCTGGGGAACATAGCAAGAGCCTATCTTAAAAAAAAA
AAAAAAGCATTTCAATTATTTAAATTTNTAATTACAAAACAATTCTTTCCTGTCTTAG
TTTAGTTTACTTTTTACTCACAAAGTTCCTGGAAAGTAGTTATTACTCAATAATTGAATG
CATGAGTGTCAACTGCAAAATCTATGCATTATGTAGNGATTGAATCAATTAGTCTTTNT
TGATACTCCAAAATTACCCTTTTTCGAGNGTCTTTATCANAAATTTGATAAATCGGAACT
T

Sequence 192

TCCGCCCCGTGAGGGGCAGCTGTGGTGTGGTGTGATGATGCTGGGATAGGCACTCAGATG
GTTGAGTCTGAGTTTGGCTCTGATATTATATCAACTGCATGGGCAGCTGTGGTGTGGTGT
GATGATGCTGGGATAGGCACTCAGATGGTTGAGTCTGAGTTTGGCTCTGATATTATATCA
ACTGCATGGGCAGCTGTGGTGTGGTGTGATGATGCTGGGATAGGCACTCAGATGGTTGAG
TCTGAGTTTGGCTCTGATATTATATCAACTGCATGGGCAGCTGTGGTGTGGTGTGATGAT
GCTGGGATAGGCACTCAGATGGTTGAGTCTGAGTTTGGCTCTGATATTATATCAACCGCA
TCATTTTGGGGAAGACACAATTTCTCAGAATTTATTTAAGTTGTAAAAATAA

Sequence 193

ACACATTGCGGCACCGGGCTGGGCCTGGCCATCGTCAAGCATGTACTGCTGCGCCACCGC
GCGCGCTTGAAATCAGCATGTGTGCTGGGCCATGGCAGTACGTTACCTGCCATTTTCC
GCCAGCTCAGGTGACGCGCACACGGCTGGTGGGAATGATGAATAACCTGAAGTGACGAC
GACCCAATGTGGGAGCTGCTGATACTTTGCTGTCTCCGCCAGCAGTGGGCACTAGGCAA
GCGCCCCATCAGCCGCTACATTGGCCGACTTGCGCCTGCCTTTCAGGCCCTCTCGTCACC
CCTTATTGAACACACGGAACCTGCAAAACCCCATCATGGACCCTTCCCCTGGTATTACCC
TCGCTACACTCTTCGCCGATTTGGGCATGATTTCTTTTGCATGATCCTGGTACTGCTCA
ACGGTTTCTTCGTTGCGGCGGAATTTGCCATGGTCAAACCTGCGCTCCACCGGGTTCGAGG
CCATTGCCACACCAACGGGCTGGCGCGGGCAGATCCTGCGCACCGTACACAGCCAGCTC
GACGCCTACCTGTGGGCTGGCAGCTGGGGTATTACCCTCGCCTTCCTGGGTTTGGGTTG

Sequence 194

TGAAATCTCCTAATACACTGNGTTTTTATTGTTATGTATTCTATGTTTTAAAGCTCCTCA
AGGTATTGTTATTCTTTGTATAATCAGTGTTTGTGGAGCTGTCTGTAAATTTTCCTC
TTTTTGTCTTTTATTTTTCTTCAACTCAGACCTTCCAAAATGGGATTATTTTCTTT
TTTCTTTAGAGACATTTGCTTGATAACAGAATTTAATTTGGCGGCTATTTATTTTTTTC
AGCACACTGCAGGTATTAAGTACTTGGCTTCATTGTTGGTTTTGAAAAATCAGCTGTTT
TAATGTTGCTCTTTGAATATAATCTGCCTTTTTCTGTACTTGCTTGNCTTTAAGTTTTT
GTT

Sequence 195

CGCTCCCTGGTTTCTTGCTCATGAANAAGAAAAAATCCTAACTGTTCTTGATGATCTTT
AAGGCTCANAATGATCTGGACAGAGGTATTTACCTTGAAGCTCATAAAGCATAGGCCCTT
CTCACTTGACAGATATCTTTCTGAAGCTGGACTAAATTGGTTAAGGCCACTGTACTTTTC
CACTTTGTCTTTCTTCTGTACACACCCTATCCTTTCAGGCTGTGTTGGGATGGACAAA
AGCAGTTCTGGAGTCTAAGGAGAAGATGAGTGGGATATGTTTCTGTGACCTGCAGTCAT
TTTAAAGTTTAGCTGTTGCTAGCTGACTCCATGTAAGAATACCTTCCAGGAATTTGATGG
CTGTGCACTCTGGCAGTGCAACTGGCATGGT

Sequence 196

CNCGCGTCCGGCCCTGATTGATGAAGCACAGTCAGTAAATCATCTCTTCATTCCCCAGTT
CTTAAGCCAACATCAGCAACACTGAGAGAACATTAGATTAAAGGCAGGTATAGAAGAGAG
ACTTAGGGTAACAAGTTAGTGGGTGCCTGAAGGCATGTGGGAAGAGATGTGGTAAAGGTG

TABLE 1
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TGCACACTATTCCTTACGTGACTTAAAATGTCAAGGGGCTTGGTGTGGTGGCTCATGACT
GTAAACTAGAGCACTTTGGAAGGCCAAAGCTGGAGGATAGCTTGAGGTCAGAAGTTCAA
GGCCAACTTGGGCAATATGGCAAGACTGTGTCTCTACCAAAAAAAAAAAAAAAAAAAAA

Sequence 197

CCGTCCGGAGAGGCTGTTNTTGATNGATACTCCAGAATAGACACGGGCCCTTGAAAAGCT
TGTACCTTTGGGAAAAGTAGACCAGGAAAATCTCAAGCCAGAGAAGGACTATGAAGCTT
CTTTTTCCAGTTACACATGGAAATAAGAGGCTTTCATGAGAAACCTAAATCAACCCCTT
TNTNTTAAAGCAGTTTTTGGAGTCTAAATTTATACTAATTGCATTGTGGAGCAGGTCTAG
CCAAGAAATTAACATGACAATCAGTCTCTAATCTGTCTGTCTATCTACTTACTTACCTAC
CAGTCAGGCCAAAGAGATTCCCAAGTAGGTTAAAAAAGTAAAGTCTGATAACAAATA
ATTAGTAAGAATGAATGAATAAATAAGCACAAGGAACACTCTACCACAAGGAGGAG
TACTCATCATCAAATGAGAGAATACCCTAAGAAAGTGAGATAATGCCAGCAATCTGAA
AGATATTTTACCNAACGTGTTTAAATGNTTAGGTTATTAATAAAAAAAAAAAAAA

Sequence 198

CTAAGCTGTTATTTTCCCTAAAAATGCTTCCCTTGCAATTTATACTTATTAAGAATAGATA
ATAGCTAACATCTATCCACTGCCTTTGATTCATGAGGCCCTCACGAATTGCCTCATTAGG
TCTCCGACAGTATGGTACAACACTCTTTATATTTTACAGATGAAGAACTGAGGCTGGA
CTGNTACCTTTTTGCTACACATCCTAATG

Sequence 199

AACCTGTTTTGTTAGATGTGAATCTAGGAAATACAATATATTTTAAATGTAAAAGNACTC
TTGCTTTACTTGTAAGCTGATTTTCGTTTTTTCCCTCAGGCCATCAAGCCCTGTGCTC
CTATGACCAACAATGCTGGCAGACTTTTCCACTACCGGATCACAGTCTCCCCGCCTACGA
ACTTTTTAACTGACAGGCCAACTGTTATAGAATACGATGATCACGAAGTATATCTTTGAA
GGATTTTCTATGTTTGACATGCCCCCTGACCAATATTCCACTGTGTAAAGTAATTAGA
TTCAACATAGACTACACCGATTCAAT

Sequence 200

AATGCAAGAACATCTGGATNAAATGGCTTTCTAGATGAGAATGGTTGCATTTTTTAATGG
CTATTCTGGTAGAAAGGACAACATGTGATATTCGACCCCTCTTTCTCAGACCCCTCTTT
ATAACAGCTAGTATGGAAAAATCTGTCTTTCCCTATAAATATTTTCCCTGGGGAATGGNT
CCCATTAATGTGTNGGATGCTTTGNTGTTTCTCTTGCACAGCGTGTATGTTGTCATCT
GCACCTTAAGAAAGTGAATGGAATGGAATCCCTGGTTTCTTGTCTGGCTGGAGGTCCCA
AGTCCGCATTGTGATTTTGGGAAGTCAACCGTGTCTTCTAGATCTAATTTAACTCATCT
GTAAAAANAANNNGGNTNGAATTCCGACAATTTTCATGGGTTTCATTAGATGCCAATATTTT
ATGACTCATGATCCAGCNAGACTACACCTATTTATAAGGCTGGTTTTGCTTTTTTTAC
TAAGAGCAACAATNACTACATATTTTCAGGTTACTCAATCATCAAAAAATTATAAAATC
CATAAACACTTTGGATTTGAAACATTGCAACTTTG

Sequence 201

CGTCCGAAAAGCAGTCTTTCTTGCTCAAAGTATTAANGGTGAACAATTGAATAGAGTACT
GTGGTCGGGAGACTGATTTGAGACTGCAGAGCTGATGCTGGGTAGAGGGTCTGGACTTGT
ATTCATGTTCTGTCTCAGGGCAGCCCTGGAGCAGGAGATGGCAGAGGCATTTACAGCTG
CAGAAAACAGGGAGGAATGGAATCTGAGGTAGCCCTGGCCTCAAATTCAGGCCTGGCTG
TATCATTTACAGAGATTTTTCTGGAGGGAAAAAGTCTCATTTCTGAGGAAGGCAAGGNGG
GCTAATCATTATTAATTTTTTTTAACTTTTTG

Sequence 202

GCGTCCGGTTGAAGAGGGCAGGGAATAGGGGTGGGTGAGCGTGAACAGAGTCAGGCTGAT
TGCTGCAGGGTCCCTTGCAATAGTTCAGGTGAGAAGAGACCCGAGTAGGCCAGTGAGCCT
GGAGGAGAGGCTCTCTGTGTGTTTAAATGGTTTCCAGCTTTTTTTCTCTATTCATGTAGG
TTATACACGTTTCTTCTGTGAATTTTTATTTAAATGATTTTTTGTGTTACTGGATCTAC
AAACAGCCCAACTCCAAGGAATCTGGCATCTCTCAGTGGAGCATACAGGTGACTTCATAA
TCTAACCGCATTAGTAACTGCCAAAATCGGAAGTAATTTCTCTCTGTTTAAAAGGCAGTG
AAACAAATTTTACAGAGCAGGTTTCTTCAACTGAACAAAATATTTTGGACCTTAAAGGTGG

TABLE 1
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TATGGCTCTCCTGATCAGGGAGGGACAGTGAAAGGTTTGAGCTCTGACACTGNCCAGCTC
TCTGGATACAACCAAGTGACTTTTTTTTG

Sequence 203

CGCGTCCGAGTATATAGAAAAACCATTAAATTTAGACTCTGTGAGATTAGGTTGCATGAAG
AAGGTTTTCTGAATATTTGAAGAGTGGATAAAATAATGTCCCCAAAGCAATAAAATCAT
AATCCTTTAAAATATAGGAAAAATAACTAATGGGAACTAGGCTTAATACTCGGGATGAAA
TAATCTGTACAACAACTCCCATGACACATGTTTACCTATGTAGCAAACCTGCACATGTA
CCCCTGAACCTTAAAAATAAAATTTAAAGTAATAATAAAAAAAAAAAAAAAAAAAAAA

Sequence 204

CGCGTCCGCTGGGAGGCTGTGGGGTCTGCCACCCAGCAGATCTGTGTCACGGGAGTGGCG
CTGTCACTCGTTGAGGTGGTGGCCTGGTTCTTTGGCCTTAGGGAAGGACAAACTTCAAC
TCTGAGCCTTGATTGAGTGACCTTGCCAAGTTACCTAGCTTTTCTGAGCCTCACTTTTT
TGGCNATTAGATGAACCAGAGGTTTATTTCACTCAGAATCCTGTTACGATGCTGGTATT
TGGACCAGCCTGCGGGTTTATCCTGGGCTCTTTCTG

Sequence 205

CGCGTCCGAAAAAGGATGAGAAGAGAGGTGCATTCCAGAAGACAAAAGGTGTGTAGTATC
AGGATAAGGGGCTTTAAATATCAGATCCAGAGAACACTGCACATGTAGAAATGGGCTTGG
CCTGGGTCAGGGCATTGAGATTGGTTACATAATCTTTCAAGGATTGGTGAATGAGTTGG
AGTATGTGTAGAAACCTACAAAGATGACAGTTTAACTCATGTGCATAATTTTTAGACAAA
TAATGTATTTTAAACTGGGTGCAGTTCTTAAAGCTGTTCTAAAAGTCAATGCAACTGAA
TTTGGAAATGTAAGCATAGGACAAACAGATGGGAAATAAGTCATGACCTCTGTGGGATAAA
GTGAGAGTTATCAAAGAATGTCAGTGTTTATAACAAGGAACAAGCTTGTGTTTGGAGAATT
ACTAGATATTATGGAATAATTTTTCTTTCTACATTTGGGTAAGTATAGCTGAACTATA
GCAGATCATATTGACTTGGCAAAAAA

Sequence 206

CCNCGCGTCCGGTTATGTACTTTTGGAGACTTCCATTAGAAATATTGGCAAGTCCCTGCT
TCGTGGCCATAGATTTAAAGGCCTATCAATTTTAAATGTTTCGGTCATTGAGAGCTAAA
ACATGTAACATATCACAGTGTTATTCACCAGAAATAAAAAATCAAGAGTCTGCTCAGAGT
AGGTTAATATGAGTTCCTTTCTTCAGTCCAGCTGATGGTTTTAGTAAGATGAAGTGGCA
AGGAGACAATGAGCACTGACTTCTCGATGCATGACTTCATCTTGTTAGAAGGTGGGTGTC
CGGGCCGCGGTGGCTACGCCCGTAATCCAGCACTTTGGGAGGCCGAGGCCGCCGGATC
ACCGAGGTNGGGGGGATCGAGACCATTCTGGCTACACGGTGACACCCCGTCTCTACTAAA
TATACAAAAAATTGCCCGGCCGTGGTGG

Sequence 207

CCNCGCGTCCGATGAATAGTTAGCCCATGATAAAGGAATAAAAGGATGAAGAATATTTGA
AGAGAAATAAATCTTCTCACTCCTCAGGTTCCCTTCCATGTGCAGGAGCCTCAACCTAC
AACTAGCAACCTTATCTCCTGACTCATTCTCTCTAGAGGAGGAGTAAATTAGTCAACTG
ATATGCTCTGGAAGAAAAACCCA

Sequence 208

CGTCCGGTCTTCTCCCCCTAAATAATGCATTACAAAGTGGAATGCAAATTTCTGTG
CAAGCTCTAAGTAGCAGGTGGTATTTCTTAATATATTGTTTTGACCTTTGGGGAAATT
GGTATTACGAGCTGACTTTGGAATAAATAAGCATCAAGGTCTACATTTTAAATAAA
ACAATCGATATCTTAATTTTAAATCAGACTAGATTACGATACCAGGAAAAGACATACA
TATTTTGCTTTTATGTGTTAAAGTTTGTAAATTCAGGGAGGACAAGAAAAGGGATATGGT
GCAGCTGAACTTTCTAATTCATAAGACAGGAAAAAAAAAAAAAAAAAAAAAN

Sequence 209

CGTCCGGGAAAAACAAGGGTTTCCGCCAACAGGCTGAGAGCAAAGGAGGACGCAGGAAAA
CTATTTTAAAAATTGACCCAAGAGTTCAAAAGGCATATGGAAGCATTTAATGGGGGTGGG
AGGTATCCTTGTAATAAGAATACCATGCATGTATTCCCACTGCTCTTGGTGGTCTGCA
AAGTGATTTTCATATGTATTTTATGTCAACACCAGCACAATGAGGTAAGTAGGACTGTATA

TABLE 1
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CCTCAGAGGCATTTGGTGATTTGTCAGAGTGGAGTGTAGTGTGTTGGTGCCCAGATTTGA
ATAGGATCATTTGAGTCTGATATCATCATGTTGCCACCGCCTACTCAGCCTCTACACCC
GATGAGGCCAATCTGCAGCTCACTACAGTCAATAGAGAACAGGCAATTAACCCCTTAAGTT
ATATTTTAGAAAGATTTCTGTCTAAAATAGATAAACTTGAAAGTATAGCTCTTCAAATA
ACGTATTCCTGTGTTGGCAAATATTTTCCAACTCACAAATCAACACATAGGTGTATTTCT
TAGACTACTAGAAGTGGGGACTTACCCCAA

Sequence 210

CGCCNCGCGTCCGGGAAAAACAAGGGTTTCCGCCAACAGGCTGAGAGCAAAGGAGGACGC
AGGAAAACTATTTTAAAAATTGACCCAAGAGTTCAAAAGGCATATGGAAGCATTTAATGG
GGGTGGGAGGTATCCTTGTAATAAGAATACCATGCATGTATTCCACACTGCTCTTGGTG
GTCTGCAAAGTGATTTTATATGTATTTTATGTCAACACCAGCACAAATGAGGTAAGTAGGA
CTGTATACCTCAGAGGCATTTGGTGATTTGTCAGAGTGGAGTGTAGTGTGTTGGTGCCCA
GATTTGAATAGGATCATTTGAGTCTGATATCATCATGTTGCCACCGCCTACTCAGCCTC
TACACCCGATGAGGCCAATCTGCAGCTCACTACAGTCAATAGAGAACAGGCAATTAACCC
TTAAGTTATATTTAGAAAGATTTCTGTCTAAAATAGATAAACTTGAAAGTATAGCTCTT
CAAATAACGTATTCCTGTGTTGGCAAATATTTTCCAACTCACAAATCAACACATANGTG
TATTTTCTTAGACTACTAGAAGTGGGGAC

Sequence 211

NCGCGTCCGGTTTCNTTGGGATAGATTTTACCTATGAATTCCTCCTTAGAATTCTGAAAT
TGCTCAGATTTACCCAAATGACAGCCAGTTTCTCATTTTACATTTGGGGGCTGTAGAATC
TTCCAACATTGAGAACCTGTTTTAATCAAAGGATGCTTTGTGGAATCCTGAATGAGGAAC
AGCATGTTGCAGGAAGAAGAGAAGGATCCTGATGCCCTAATGGGACTGATTTCTTTTGG
GGGGCAGGAAGATATATATTGTTGGGTGCTTATAAAAGGTTAATTCCAAAGATTGTGTA
TGGTTAAAGGACTGAAAGTCACACTTAGCCTCATACTTCACTTAGATGAAAAACAAAAGC
CTTCTCTCCATTACCTTGTAAGATCTATTCTTGTGTCTTGTGCTGAGTGGACCTGGAA
TAATGGATAGCCCTCACTGAGTACCTAGAAGGGGACTAGGGGTGGGTGATGAAAGGGGGT
TCACACCGAAGATCTAAGTGCTAGCTTGGGTA

Sequence 212

CACGCCCCGTGGCCTTGCTAGAGATCCATATAATGCAGTCATGCTGTTTCTTNCTCCATA
GTATGTGGGGCATGAGGAGGAGACAGGGAGAGGGTGGCTTCATTGNGCAAANGNGGAATG
GCTGTGCTTTGGGGCCAAGGAGATGCTGTCTGCTGCTGCTGTGAAAGGTCAGGC
CTGCCCCNTGAGGCTCCCTTTATCCTCCTAAATTCTGGGGCATCTACATGACGCTTTCT
AGTCCACCTTTGCCTNCGCAGATCATGGCTACTAACCTGACCTTTGTCTGTACTTGAGCA
CCCTTCGCGATTTAACTTNCATGTANCGTCCGACTTCTAATATGGATTTGAATTTNTTGA
CTGTTACTGCTCANAACAATCACCCCTTTTTTGGAGCAGNGAGCTGGNAGGATAATTGCCGA
CAAATGACATTNGGANCCGTTTTNAACCACAGGGGGCATGGGG

Sequence 213

CGATCATTTTATTAGAGTNATGTATTTAAGAACTGATAAATCATGGGCTTACCTACACAA
TGTCTAGACACATGAGCAATGAACAAATAGCAAGGTCTGTGATATCTCATATGGCAATAC
TAGGACTGAGATTATTTTTGTTACAATTAATAATTGTCAGTAAAAATCCACAGAGATCA
TTTGAATGGGAAAAAAGTCTGATATATTTGTTTCAGATTATAATCATTAAATAGGGTAC
CTGACAGTTTTCAAAGTTGTTTAAATGTTTTTGGTCTTTAACCTTCCTAATCCTACAAG
GTGGTTACAATCCACATATTATCCTTGTGTCAGGGGTCTCCAGCACCTGCCTTAGGGTC
AGTGATTTGCTAGAAGTACTTACAGAACTCAG

Sequence 214

ATCTGACAGCCTGGAACNGCACCCACACCCCCAGGTGAGAATCTGATGTTCTGGAGCATC
ACACACAACCACAGGTGAGCATCGGAGAGTCTGGAGCAGCACCCACAACCCAAGGTGAGC
ATCTGACAACCTGGAGCAGCACCCACACCCCCGAGGTGAGCATCTGACCTCCCGGAGCAGG
ACCCATACCTCCAGGCGAGCATCTGAACCATGGAGCAGCACCCACGCCCCAGGCGAGC
ATNTGACCGAACAGAGCAGCACCCCCCTCTA

Sequence 215

TABLE 1

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TCCGGGAAAGACTCTGAGAAAGGACTCCTGACCTGGCTCTTCCAGAATGAGGATGGATT
TCCATATGAAGGAGCCGGGGGAGGACCTTCTGGGTAGAGCGTGAAAAGAACACAGTATG
TGTGGAGAGCGGGAAATTGTGTTGAACTGTCTAGAAAACAGAGCCACAGGAATGCGTGT
GAGGGCTTGGGCTGTACAGTGGAGAGTGCCCTCCCTGGCCAGGGAGTTGGACATTCATCC
CACCACAAGACCCCATGAAGAGTTCTCAACAGCTCTGTGTCCTCATCAAACCTGTGTTT
GCAGAACAGTGGAGGAAGAGAGCTGAAGGAGGGGAGAGGCCCTGCACCTGCCAGGCCCTG
GCCTAGACTACAAGGGTGAGCACTGAGCCATGCTCTCGGGGAACCTTCACTGGAGTTGAG
GGCAGTGAGAATGTTTAAAAAAAAAAAAAAAAA

Sequence 216

ACGCGTCCGATGCACACTTGTCTTTTACCACANGGGTGGGGCGTGGGANGGAGGTTTGT
TTGGATAGCCACGTAAACGCCCTTTCCTGTGGCCTGCGATGTTCCACACCGTTTATGTGT
GAACTGGCTGCACCCGCGCCTCCCGGACGGGGCTGCCAGGGAGGAGGGCCCCGGGAGACCC
CATCCAGACCCCGGCCCGCACGCTGCAGAGGTCTGCTCTCAGACATGTGGTGGGCTCCGT
GTCACGGGTAAGGGGTGCGGGTCTAGACGGCAACAGAGTGTCTCTCTTCCCGCTCCCT
GGTGTGCCACCTCCCTGTACAGTGTCTGTTCAAGCTGCTGCAGGGGACGGGGCATT
TTCCTCCAGACTCTATTTTCTGCAAGGAAGAGCTGCTGTCTTTTCTTACTGAAGCCC
CTGATTCTGTGTCTGATGTTGCTGACCGCCGTGCTTGCTTTCTTGCCCGTGTGCAACTC
CAATCCCAAGCACACGTGCTCACTTCCAAG

Sequence 217

GCGTCCGGGGAATGGCTGTNAGTNAAGTTAGAGGTAAAAAATTTTCATGTTAAGATTTTG
GAACTGGATTTTATTTAAATAATGATGCGAAGCCATTGAAAGGTTTTTGGTGTGACAGG
ATAAATTTAAATATGAACACACCAACGCATACTTCTTTTAAAGAAAGAACCTGATTAAAT
TTGGGAATTTTAAATAAAAAACAGGAAGCATATCGTACTCTAATAATAATTCAAGGGT
TTTTATTTTCTAGAAAGATCAAGGTCATGTTAATAAAGGGAATATAGTTTTCTTATCTGT
GTTAAGACACTGATGACTTGCAAAGAAAAGTAACACTTTTGTGATATCCTTAGGTAATTC
AAGAGGAAACGCTTGAGCAATTAAGTGTGTTGTAAGTGGGATCAGAAGACATA

Sequence 218

NCCCCGCGTCCGCCCAGTTGCAAAGGAGATGTTGTAGGATGTTAGGTCTCAGCACAAGGA
ACCCAAACCTTCAGGGGCTCTCCTCTACATTATGCTCCCATTTTTCTCCCAAATATCGA
TCTCCACCCACCCTAGACATAGAAGTGGAGAATAAGTTCAGTTTCATCCCTTTCAGAT
CTTAGGGGGACCCATCAAATCCCAGCCACTGGGTGAAAATCAGCAGCTTCTTTATAGGA
CCTGAGTTGCCTTCTAGAGGATCCTAGAGGAAAAAAAAAATCTTATCCTTCAAATACT
GCTGTCTTCCAAAATACGTAAGGACGCCACGGTGAATCATAGTGGACACCCTGCATTGGT
TGGGTTATTATTTATCCTAGAAGCTTGGGTTCTTGAGCCCTAGCTTATTTAAGCAACAA
AGTCCCTCACAGCCACAGGTGAGGAAGTGAAGTGAACAAAGAGATCATTGGACCTAAAA
TCAAAACACCTG

Sequence 219

CCCGAAAGGAGGTTTGTGGAAGTGGAGAGATCCAGGAGGTAACACCAAAAAGCTGCATT
TAGCAATGCCTGCCTAGCCCTCCTGTACAGCTCATGTTATTTTGTGCTTAGGCCATCT
TACACCAAACCATTCCTATCTCCATGCTTTTGTATGCTGTTGCCTCCTTTTAGAAGGG
CCACGCTCCACCGCTCTGCTGTGTTGATACTACCGACCCTTCTTTAGTTCTGTTCAAT
TCCCAAGCCTTCTGCCAAGCCTTCTTGACATTCCCATCCCATGCTGACTATTCCTTAAG
CTAAAACCTTAGAGTTAATATGATACTTGGCTACCTCATTGTTTCATATCAGTCAT
TCCTGTCTCTAGCTATAATCGGCTCAGCCAAGGAAGATATTTTATATGGACAATGTCTT
TGTGCCTTGGCTGTAAACAGTGTTGAATAATTAATCTCACTTGATGAGGTCTTACTTAAT
GATAGCCTCC

Sequence 220

CTCGTCCGGGCTGGATCCGTCTGCNCCACTGCAAGGGCAAGATGCAGCTGGTGGCTGACC
TGCTGCTGCTGTCGAGCGAGGCGCGGCCCTGCTCTTCGAGGGCCCCGCTCCTCTGGTG
CCGGCGCCGAGTCTTCGAGCAGTGCCGGGACACCATCATCGCGCGACCAAGGGGGTTT
TCATCCTTACCCACGACGTGCAGAGCCAGCTCAACATGGGCCGCTTCGGGGAGGCGGGG

TABLE 1

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ACAGCCTGGTGGAGCTGGGCGACCTGGTGGTGTGCTGACCGAGTGCTCGGCCACGCGG
CCTATCTGGCCGCTGTGGCCACGCCGGGCGCCCAGCCCGCGCAAGN

Sequence 221

GATTTTGGCTNCTGCAACCTCCGCCTTAGGGGTTCAATGCAATTCTCCTGCCTCAGCCTC
CAGATTGGGATTACAGGCATGTGCCACCGTGTCTGGCTAATTTTCTTGTAATTTTAGTAC
AAAAGGGGTTTCACCACATGGGCCAGACTGGTCTCAAACCTCCTGGCCTAAAGCGGATCCA
CCTGCCTCGACCTACAAGGTGCTGCGATTACAGGGATTACAGGCTGGGATTACAGGCAT
AAGTCACCACACCCAGCCTAAAAATTTAAAGTTTATACTGTATTGTTACATTGTGATGC
AACTTTCCATATGTATTTCCAGAATCAACTATGTATCAAGGAATATTGAAAGCATAAAT
GAGATCATGGTGAATTCTCTCCCATTTGTCATTCTTGNGGTAAGGGAATGAATGGTGG

Sequence 222

CNCGCTCCGAGTTATTNATATAAAGAACATTTTTCTGTTTTAGAGAGAACCCATTTATT
TGTGAAAGAAACAGAGTTTTGTTCTTATCCCTATAAACACTGCATTTGCTGTTTCTTCTC
TAGCTGATGTGACATATTAGGGAAGCAGCACCCGACTGGGACTCAAAGACCTGGGTTTG
GAAACTTTTTGATTACTAGCTTAGCTGTGTGAAATCAGGCAGATGGTATAACTTCTCTCA
TTGATGATGTCAATCTTTTTAAAAATTTCTAGCAGTGAAATTTTAAAAAATGAAATGTT
AGGTGAAACCTCAAACCTACAACAGTGGTAAAAATTGGAAGGGTTCTGGATGGAGTGAGGG
CAGGGAGGGGGTAACTGGGCTGAGGGGGCCCTCTCAGCCTCTTCTCCCTTCAACCGA
AGTCTGAAATCTCTGGCTAATATGGGTGGATCCCTAAGATTTCTTTGTACTTTTAAACA
TACCGAAAAGNTATTCTAAAGAATTTTGGTATGGTTTT

Sequence 223

CGCNTCCGCCGAGCGCAGCAGTCTCCCCCTAACCTCAAAGCCTCCTCAGAAGTAACCTG
GTATCAGTGGGCTGTGCAGATTCTTATAGTCTTCTTGCCTTTATATATGAAAATAACTT
TGTTTTATGTTTGTTTTACATAGGTGGAATTATACTGACTCTTACTCTGTGACTTGCTT
TCTTCACATGACAGTAACTCCTGGACTGTTTCTGTAGCAGCCACACAAGTCTCCTTTATA
TTGCCAATATCTATCTTTATCCCAAAGACAAGATGAATGTTCAAAAACGGTAATCCAAAC
TCACTTCTAAAAATGGGTGTGTGTTTAAAGAAGAGCTGCTCAGCTGAGGCAGTTTTGCTG
CCGAGGGGATTTGAGCAATGTCTGGGGACGTGTGGTTGTCACAACTTGTGAGGGGGCTC

Sequence 224

GCNTCCGTCAATTTGCATCAGTTGCCTTAAAGAATGGGGTAGTTATAGGAAGCTCACAGA
GAGGAAAAAACTCTTCATGTCTACATTGCTTCTTGAAGTATTTTATAAAAGAAG
AATTGTTGAGCTAGTGATAGAAGTTTCATGAATCCCTGGTACTAATTATCAGTTAAATG
ACCTCTCTGAAGTCTCTGGAGAGCGTTCTGTGTCACTAATATTGGTGAAAATTTGAAACA
AAAATGCTCTCCCATTTGTCCACATATTGCTTCTTTGAATTTGGTTTTTCGAGCCAAGAAC
TTAGGGTGTGAGAATATGTTTGTGGGGAAACCCACACAAATTTTATGTTAGTCTCTGTAC
ATTTAAATTTTACCTTCCTGATTACTTACGTAAGACTAAACAATTTAAGTTTCTAAAA
GCCATCACTTTTGCAAATAAAGGACTTTATTAAGNTGATAAATAACAATNATGGGCCAT
CAGCTCCACCTATAATTAATATCCTTGCCTGGCACCCCTGGAAGGGACTTAGCTTNTT

Sequence 225

CNTCCGCAATTAAGTGCCTTAGGCTAGATTCCCATGAATANGAATTGCTGAGTCAAAGGT
TGACACATTNTTTAAAGGTTAGATACATATTAGTCAAAGTTTTTAAGCAANATGCTTCT
AAGCCTNTTTGATCTTTATAANNCAATTGNTCCTTTCTAAAAATATATAACTGTCTTCTGC
GTNCCAAGGATAATNTTTTTATTAATATGGGGCTTCTTGTGTCTACTTCTCCCTTTTC
GTTATTTCTTCAAATGTTTAAACAACTAATACATTTCAGAACACATTATGCTTNCATCT
TGTCATATTTGCAGTACCTTGTATCTCCTGGACTTTATGCAATGCGTGTGTGTGCACAG
ATGGAATATGTTNCACCATTTGGCT

Sequence 226

GCAGTGCCGGCGGCGCAGTTGGGAATGGGAGTGGGCTTGCACAAGCGCCGACGAGCGATA
GCGACGCTATGCCCTCTCTTGCCAGGCGCCGGGTGGCGCGGATCAACCTGCTCTCGCAG
CAGCCCTGTGGTGGCCGCCGTGATGATGCAGGAATCGTATTTGACGGTGGNCAGCTT
CGCTTCGATCAACATCTTCGNCGAAGTTCGCGTGAACCGTNCGGNATCGACATCGTGG

TABLE 1

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CGCTGGCATCTGCCGCTATACCAATCATCGAAACCGCGCTGGAAGGTCGGGTCCAGCGCC
CTGCAGAAGAGACGCCTCCAGCAGGACAAGGTGGCCTGCTCGACGAGCAGGCTACCCGAG
TGTCGTTGAACAAGTATCGCCTTGGGTCT

Sequence 227

CTGACACCCAGTATTGCCAACCTAAGGACTAGGAAGAAAGGGCTTACATGTTTCTTGCTT
TAATAATATGTGAATTAGAAAAGGTATTCAAGAAGATACAGGGTTAGAATGTGCATCTTT
CTTTTATGTACTGAAATGTTTCAACTCATATGCAGCAATGTGGTNACCTTGAAAGATGAT
TCCAGAGATTTTCATGCTTCTGGCAGTTTCAGGTCACATTGGGGTGAAATTTGACATACTG
TAGTCATCCCCAAGGTAATAATGTTGATGAAATGGTATAAACCCCTGATACATTCTTAAGC
AAAATGAATCTAAAAGTTTGTTTCAAAATTTTAAACGTTTTATGTTGCTCTGACTTTCCA
TATACTGATTTTTACATTACTTAGTGAAAAAATAACCTTTTAGCTTNTGGCAACA
AAACATTTTTGGCTATT

Sequence 228

CCNCGCGTCCGCAAGACAGGAGATTTCTTAAGGTCATATATGCACGATTTGCTTAAACGT
CATATAGCATAACTGGAAGAATATAGAATCTACCCAAAGCCTATGCTCTTTCTACTGNAT
TATTTGCTTATAATAGAGAATGCTAATCAGAATCACCTGAATAGTCTTGTAGAGGGTCAG
TACACAAGCCTAGGTCCTATCCTTCAGAGAGGTGAAATGGAGGCAAATATATTCTGAAAG
AGTTTCCCAGTTGATTCTGATGAGCACTCACAATTAAGAAGTGCTGCATTAAGAGCTGTA
CATGGTGGCTTATGCCTGTAATCCCAGCTATTCTGAGGCTGAGGCTGGAAGATCACTTG
AGCCTGGAAGATCACTTGAGCCTGGGAGTTGGAGACCAGCCTCGGCAACGTAGTGAGACC
ATGCTTTTTTTT

Sequence 229

TTGGGAGATATGGCANGGTGAGAATGTTTGGGAAAGGAAGTAGAGACAGACATTGGATT
TTGTCAGTCAANTTTCTTTTGATTTTAAATTATTTATTACATTGTCTACATGGCAG
TTAATATTCTAAACTATAAACAAAATTTAATATAGAAAAATATTATGCTTTTCTTTTT
TGCTTTGTCATGCTCTTATTTCAAAATAGATTTAAATTCATGGCATATTATACTAGAAA
ACAAGTCTGTCAATGATCTAAGCTTCTATCTTTAGATACTAGGAAAAAGAGAAAAACCC
AAAGCAAGCAGAAGCAAGGAAATAAGAACAGAAATAAATGGAATTGANAAGAACACTTCA
GAAATCAGTCAAACCTGAAGCTGATTTTTATAAAGATTA

Sequence 230

CCACGCNTCCGAGGAAACTGGCAGGGAAACAAAGTATCCCTGGAAGGAATTTCTTAAAGA
GGAAGAGGCAGATCCCTACAAGTTTAAATCAAAGAATTTGAAGATGTTGATCCCAAAGT
GAAATTGAAAGATGGACTTGTGAGGAAGGAGAAAGAGAAGCATAAAGATAAGAAGAAAGA
TAGAGAGAAAGGCAAGAAAGATAAAGATAAGAGAGAGAAAGAAAAAGTGANAGATAAAGG
CAGAGAAGATAAGATGAAAGCCCCAGCACCCCCACTGGTGTTGCCCCCAAAGAGTTGGC
CCTGCCCTTGTTGAGCCCTGCCACAGCCTCCAGGGTCCAGCCATGCTGCCATCTTTGTT
GCCAGTGCTTCCGGAAAACTGTTTGAGGAGAAAGAGAAGCCGAAGGAGAAAG

Sequence 231

NCTAGACTCCCCTCTCGTATCATGGATCCCAACATCNAGGNATATGGNCATTTACGTGTT
GGGATCTGCTCTGCCATTGNACACAGCTATATTCNATTGCCCCGGGNGTTGTGTATNTTT
CCAAAAACGTTGAAAGGGAGGTTCAGAAAGTATNCAGTTATTNGTATTATTAGTCGTTTTG
AAACTGAGTNGAAAGACTCATTNANGAAAGNTCCATATGCCTTCTTGTCTGTCTATGGCT
GGNNTGCTCNNGAGAAAAGTCCNCANTTATACAATTGTA

Sequence 232

TTTCCTTTTTTTGGGGGCGGGGTGCGCTCTGTGCGCCAGGCTGGGGTGCAAGGTGGCGCG
ATCATGGCTCATTGCATCCTCAAATGCCTGGGCTCAAGCAAACATCAGTTTTCTTATCTG
TGAAATGAGGATAAAAATGTCTCCACTTAAGGGTTGTTGCAAGGAAGGTGTTGCCTTAGT
CATAAAAGCTAGGGAAGGTGTTCTTAACGAAAAACAAATTCGTCAGAGACATGAAGGTAGA
GGAAGAATTCACACATGAAGGGGGCTGGGGAAAAATGATTTAAGAAAAGAAACAGGCCTGG
CGCAGTTGCTCAGGCTTGTGATCCCAGCACTTTGGGAGGCTGAGGAGGGTGGGATCACCT
GAGGTGCGGGAGTTCTAGACCAGCCTGGCCAACCGTGGTGAAACCTTGTCTTCTACTAAA

TABLE 1

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AATACAAAAANATTGGCGGGGTGTGGTGGCAGGTGCCTGTATTCCCAGCTACTTTGGAGG
CTGGGACGGGATAATTNCTTGAGCCCCGAGGCGGGGGTTTCCGGTGAGCCCCGGGATTGC
GCCCTTGCACTACAAGCCTGGGGCACANAAGCGAGGACTNTGTCAAAAAAAAA

Sequence 233

CCACGCNTCCGGTCTCAAATCNCCTCAAGTATATTCAAATTTGACCACTTCTCACCAGC
ACCACTGTCATTATCCTGATTCAAGCCTCCATCATCTCTCATCGTTACTGTGACCTCCTG
ATCATTCTCCTTGCTTCAGCCCTGGCCCTGCAGGCAGCATTAGTATTAAGCAGTAGAG
TTGTTTCTATAAAAAATGTAGTCAGCTGGGTGTGGTGTCTCACGCTGTAATCCCAGCACTT
TGGGAGGCCAAGGTGGGAGGATCACTTGAGCTCAGTTTGAAGACCAGCCTGGTCAACATG
GTGAAACCCTGTCTCTACTAAAAATACAAAATTAAGTGGGCATGGTGGCGGGCAGCTGT
AATCCCAGTTACTGGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGGCAAAGGCT
TGCAGTGAACCCAGATCACACTACTGNTTTTNCACCTGGGCACAGAGTGAGACTGCCTC
AAAAAAAAAAAAAAAAAAAA

Sequence 234

TCGAGGTCAAGGACGGTTATGGCCCGTAACCTGCTGCCGCAGAATTACGCCATCAAG
TGGACGCGCGGTGCTGAGGCCAGATCAAGGACATCACTCGCGCCCGTAAGGCTAAGGAG
ATCAAGTCCAAGGAGGAGGCTGAGCAGATCCGCTCGCAGCTGGAGCACCTGGTCTGCCAG
GTGACTGTCCAGGTGCGCGAGAACGGTCTGTCTGTTCCGGGGCCGTGACTCCTGGCGATATT
GCGCTGGCAGTCAGGAAGGCCGGTGGCCCCGCCCTCGAGAAGCGGTCCATCGAGATCACC
AAGCCGATCAAGACCATCGGCAAGCACACTGTCCGGCGTCAAGCTGCATGACGCTATTAA
GGGTCACGTCACGGTCGAGACTGTTCCCGCCGCGTTGATTTGACGTACACGCAGANTAGG
GGGAGGGGCATCCAACCTGGGTGCCCTTCCCTTTGCTTNCGTCAACCCGGCGAAAGGTAA
ATGACCGAAAGTAATTCTTATTACNGTGCTTAGGGGGGTTTCGCCGCGCCGGGCCGTTAG
ACTTAGTCTAGAAGAAAAACCTTCCACACCTTCCCTTGAACCTGGAAACATTAATAATG
AATGCNATTGGTGGGGTGGTAAACTTGG

Sequence 235

GNGGTAGCTTTGTGTATGTCGGGCACTTCNAGGAATAGGGTGCAGGAGAAACGTCTCAGT
GTCTCCCTTCCGAATCTTGGCTTCTGGAGGGAGAGATGCTGGGGTGGGAGTGCTCCTTG
GTGGAGTACTCAGGAGCTTAGTAAAAGCAGAGGGGGCTGGAGAGGCAGGCCTGGCCTGCA
GAGCCAGCATGGAGAAGCCTGGTGTAGGGCTCTCCAGCCTGCCAATTTACAGTTAAGAAG
AAAGGAGATATGTATATATATATACACACACATACATACATACATACACACACATA
TATACACATATATATACACACATGTATACATATATATACACACACATACACATATACA
CACACATGTACACATATACACACATATACGTGGGGTGTGTATATGTATATATGTGTAT
ACGTATATA

Sequence 236

AACTGTCTAATCTCTTGACCTCGTGATCCCCTGCCTCGGCCTCCCAAAGTGCTGGGATTG
CAGGCATGAGCCACTGTGCCAGCCATACTTTTTTTTTTTTCTGGNGCATTCTGAAG
TTAAATATGTTGAGTTCTCTGCCATTTGTTCAAATCTATTGNATTATTTCTGNNGGAT
TGACAAATGTTATGAACAATTTGGTTTCAAATAGATTTTTCTATTTAGCAACTTTCTAT
TCCTCTAGGACCTAGTATTAAGGTCATTAAGATGGCTTAATGAGTCATTAAGCCATTAAT
GAGTCATTAAGATGGCTGACCAATCTGTGCCATCTTTTATGACATTTTGTATCAG
TGTCTCTTTTGTGTATTTCTTTGATTTATATCTTGACAGTATTACATAAGCAGGAATAAA
AGAGACTTTGAGTGGGAATGTCTCGCTCAAATATAAATAACCTTATAAATACAATCTTTA
CTTCTCAGAGTCCTAAATCTTCTTGGTTAGTCTGGTCTTCTGGGTTGATTCAAGGTTCT
TCGGNGACTAAATGGCAT

Sequence 237

TGTTNACCTTTGGGATTACACAATACTTGCAATCCAGCTCTGCCATGGGGGACATCATT
CACAAAGCACTCCTCACCAGTAGTCAGATGGCACTTGATAGCTACAGGCATGTGAATATT
CTTTTACTGTCAACTTTTGTGTGATTTACCTAAAATATGATAAGCTCCTTGAGGATAA
AGGCTAAGTCTTACTTCTTCTGATTTCTGGTAACCGCTTGACCAAACACCTGCCAAGCA
TTGTTGATTGCACCTATGAGGAGGTGAGAAAGTGCCAGGCCGTGATGCCCTCTATACAA

TABLE 1
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ACATGTAACAGTAGACTCTGGTTCATCAAGGAGTAAATGACATGATATGTGATAGACCAC
ATACATTCGTGGCTATAGATAGGGTGAGTAACTGTAACCATATCCAATTGTGAGCAAAAA
GTGTTTAATTGGGGNGGTTTTAACTAATATAAAATTGGCTAAATCATCATTTTTCAAGC
TCTCGAATCATCTGAAGACCTTTTTTTATTTTTTAANANTTAGGCC

Sequence 238

CGCTCCGTTGCAGTGAGCTGAGATCACGCCACTGCACTCCATCCTTGGTGACAGAGCANG
ACTCCATCTCAAAAAAAAAAAGAAATTGGGTTGTCTAGGCACAGTGGCTCGTGCCTGTAA
TCCCAGCATTTTGGGAGGCTNCNTAGAANAATCACTTGAGCCCAGGAGTTTGAGACCAGC
CTGNACAACATAGTGAGACCCCATCTGTACCAAAAAAAAAAACACCAGACCTGGTGCCAC
ATGTTTGTAGTCCCAGCTACTCAAGGGCTGAGGTGGGAGGGATCACTTGNNCCCAAGAAG
TCAAGGCTTCAGTGAGCCATGATTGGTGCCACTTGACTACAAGCTGGCAACAGANCCAAG
ACCCNTTTAAAAAAAAAAAAAAAAAATNGGNTTGGGTTATAGGNGAAGTTNCCTGG
AAAACCTTACAAACAAGAACCATGTTTGGGGGAANCAANTGGANGGGGTNAAANTGNCC
NCTTGANGCTTNTCCTTTNGNGGNCCNTAATTA AAAANGTTTCCCNGGTNTTGGCCNNGG
GNCCGGAAAATNCCTTNGAATTTCTTAGCCCTTTTGGGNGGGCAAAAGCCAGGGNGG
AATCCCNCCNNGGNTCAGNGATTTTNGNAACCNNACCTTGGCCAAAAATNGGGGAAAACC
CCNGTTTTTTTTNTAAAAATAACNAAAAANTTTNCCCCCTTNTCTTNGGGGGGGCCCA
CANNNNCCCCCTTTTTTNATANANAANAANAANCCCCCCCCCCCCCCCCCCCC

Sequence 239

CATCTCAAAAAAAAAACTCACACATATTTTATGTACACCTAGTATCAGTGAGATTTTTTA
ATAATTAGATTTATTATCTTCCATATTGNNTACAAAACCTTTCTTCAACTTCATAAAAAGT
CAAGTAACATACTGTACTTACTTCTCTCACCTCATTTTAAAAATAGTGGATAAATTGTCAG
ACACAGTGACTCTGCACCTGTAATCCTAGCTACTTGGGAGGCTAAGGTGGGAGGATTGCA
TGAGGCCAAGAGTTCAAGACCAGCCTGAGCAACACATAGAGACCCTATCTCTTAAAAAA
AAAAAAAAAAAAAAAA

Sequence 240

TGTCGACCCACGCGTCCGCGCTCCTGTCTCCTTGGGTCTTCATTTAAATGCCACAC
CAGAGAGGCCCTCCCTGGCCACCCTAATGAAAACCTCAACATCCTCAACCCTAACATTTCT
CTGTCCCTGGGTTATTCCTCCCCTTGGTATTTATCACCATTTAATGTACTATCTGGCCG
GGCATGGTGGCTCGTGCCTGTAATCCAGCACTTTGGGAGGCCAGGCGGGCGGATCACC
TGAGGTTAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAA
TACAAAAATTAGCCAGGCATAGAGGCATGCCGCTGTAATCCAGCTACTTGGGAGGCTG
AGGCAGGAGAATCTCTTGAACCGGGAGGCAGAGGTTGCAGTGAGCCAAGATCAAGCCAC
TGCACTCCAGCCTGGGTGACAGAGCAAGACTCTGTCTCAAAAAACAAAAACAAACA
AACAAACAAACAAACAAAAAAACCAACAAACCCACCAAAACATACCATATTTGGTTTCTG
TAAAAAATAAAAAAGAGAGAGAGAATTTTAAAAAACAAAAACCATACTATCTAATTTA
CATTTTTAATCT

Sequence 241

CCCCGCGTCCGCTAAGGCATGTGAGCGCCTTGTAGGGCACGTTCTGTCTTCTGACTACAT
AAGCAACACTTTTGGCACCCTAAGTCACAGCACCCACAGCTTTTGGCAGGATACTTTAAA
ACAGAAAAACACATCATTGATCCTGGCAGGATTTTTTAAGGGATTGTGCTTAAGAATGT
TTAACTTTGGTAATCAGAGACCACCACTGGTGTCTTCTCCAAAATCACATCTTTAAGTT
AATTAATACTTGAAGTTAATAAATAATACTGCTCAAGTGTATTAGTAATGATGCCATAAT
ACCATGTGAATTTATGCTGATTCAAATGTTGTTTTTTTCTTTTGATACTCATATGGCCTT
CTGTTTTGAGGACTTCAGATTATTTAGCAACTGATTTAATCTGGTCAAGAAATAAACTTT
GCTTCAGCTGGAAAGCGTGAGGCTTGAGAAAAGCAAGGTTTTTGGACAGGGGACCTATGAA
GCTCATGTTGAACTTAAGTGTTTTAAGGCTGTATGGGAACCTTGAATGGGAGTGAAAAG
AACCAAGCCGTCTACTGNCAAGGTTTTTCCCTCCTCCCTCTAAAAATTTATAAACCTCATT
CTTAGAAGTGGCAAAAAGTTGGGAACCTTTTCCACTGNTTCACTTCTNTTANTNAGGGGA
TTAAGGNGGATNGGNAANGGAAGTTTTTNTGGTTTTTAAAAAAAANNGNANAANGGG
GGGG

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Sequence 242

GNCACGGCGGGGCAACCTGGTTCCCTGGGCGGTAGTCCCGGCAGCTGTGCTTCCCCCTT
CACTGCAGTGCCTGTTTCAGTTGGAAACACGGAGATTTACCTTTACTCCCTGGCTATAGG
GGGATGGTGAGAANGGGGCTGCGTGTNAGNGNANATTCAAGGCATAAATCTTAGNTTGTC
TTTTAAAGAATTGNGTGCCGGGACGTGNTTGGAGGNTGGGTGCANANAGGAAGAGGCCGAN
CTNCTGGAGGANGCAAAGGACAGGTCANTNTGCGNANTTCNGNNNGATGCTGCTGANTGA
ACCCCNNGTGTGTNGCCCCAACAAAGAAAGGCTNNGCTNNGATCAAACATTTACTGNACC
TANAAGGCCACATTCTNGCTTAANNANNCCAGGAANGCNCNTTCTTGTTNCCCATTACCA
AAATCATTNACACTTGGTTTTTGGCCCNACATACCTTTCTTTTNGACCANNGTTCTGGN
NNAANGGCANTANACCNNGNATNTNMCNTCATNACANGAATAAAAAGCCCNCAAGACN
CNACANANGNGCCCATCACTANNNTANAGATNTCAAAGGGGGCCCNCGGATCCTTNACC
ANAGAANACTCTGGTCCNNAGNGNAAAGAAAGNAAAACCCCNANANGCACTGGGACNNT
NTNATANTTCTNNTTNAACAAAANCTTATAANNNAAAAAAAAAAATTTT

Sequence 243

AATTAATAAGCCTCCTGGGTGATTGGCTGCAGGTGGTCCTGAGACCACACTTTAAGAAA
CACTAATCAAGAATCAAGGCCTTATGACTCTTAGTCCTGTTTCTTCCCAAAGGACTATGT
TGCCCTCCCTACATTGAAAAACATTCCAAACAATACATAAGAGTCTTTGTAATTCACATTA
GTGCTCGTATTTACTGACTCAACAATTAATTCCTGATTGAGTCATTGAGTAATTTT
CTTTTACTCACTCAGCCTCTGTGGTTTGCCAGGAGCTACAAATAAAAGATTAACACACAG
TCACACCTCCAAGGAACTCATATAATAGTAACAGAAGTAAGTACCATTTCTTGAGCACTT
TATTTATACATACCGTCATACAGTTTATCTCATTACCTATCTCATTCCCTGCCTTTTCTAG
TAAGCCTGTATACTATTATAACCGCATAGTTTGGGAATATTTTATATATATATATATATA
TAT
TTACATTTAATATGTCTTAAAGTATTTCTTTGTGAGTCTTGCTTTATATATGTCTAGT
ATTTCTTTATAAGGGCTACAAGAAGTATCCCTCAAGCATTGGATATTTCAATCAAATTAC
CCTTGGGGGGGTNGGGGGGAAAAAATNNGGGGGGGGNTT

Sequence 244

TCGCCCCGCGTCCGGGGAAGGCTAAGGCGCGAGGATCCCTTGAGCCCAGGAGTTCTAGGC
TGCAGTGAGCTATGATCACGCCACTGCACACCAGTATGGGCAACAGAGCGAGATCCCATC
TCTAAACAAATTTAAACAAACGAACAAATGAAAAATATTGCTGTCTTAAGGTTGGGAAG
GGGCAGAGACCCCTTTGCTTGCTCATCACCAAGACACTTCTGTGAGGCCCCAGGGCTCTT
TGGAGAACGTTTTGAAATCACGGTTCTAAGTAATTATAGTTACTGTGACTGAACTAATT
TAGCCCTAAGCTTCTACAATCAAGATAGAGATACACTATGGACTGCATTTCTCCGCTTC
AGATTAACAAAAAAGTTTAAAGTCAGAATGTAGTTATATTTTTCAGGTAAATGCTCAAT
ACATTTTCAAGATGAAGCTGCTCAAAATTAAGCAGTGAGTCCAAGGGTTAATCTGNAAA
AAAAAGTACAATTTACTATCTCCTGGTTNCACTTATAGACCTCATAGGTGCATTGGC
TAATACAAGGGGCCACTAAACACATTGTGGCATTACNNGGATTTTATTGGTGAAGNGCTC
TATAAGTTTTATTGGTGCCAGGTAAAAGAAANGCCTCNTATAAAAAAATGGTGGNGGGGG
GTTTTTTTTTNNCCCCCTTTT

Sequence 245

TTCCGTACCTAAGAATTGTACCCTTTCATAACAGCACCACTTGGATATGTAGAAAGAGTT
TGTTGTGAGATCAGATGTAAACAAATAAAAGTTATTCGTGAAATGATATGGAAGACTGG
GATTAGAACTGTGGCATTCAAGAAAGCCAGTTAAGCTGTTCTCAGAATTGACAGAGATTCT
TAGAGATGGTGTAGTGCAGATGGTGTAGTGCAGGGATTCTCAGCCTCACTGCACATGGTA
ATCTCATAGGAAATTTTAAACAAGGACAGATGCAGAAATCTTATTAAGTGTGAGGACT
GAAGTCCAGAGGTCACTATATTTTAAAGGCTCTGCAAGTGATTGTAAACATGCATCTATG
GAGGAAAACATCANCGTAGGAGAAAAAGGGAAAGAAACCACTGGAGTAAAGGCTCTGTC
TTGAGCACTGTGCTGGCTCCTGTCATTCTCCATCTCTTTTATCTTCATAGTAAGTGAGA
TGGGTTTGACAAATAGGGA

Sequence 246

CGTCCGGNGTAACTTGAACNAAAGTATTCTCCTTCTTCTGTATATTTGTTCTCAACCCC

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CAATTCCTCATAACTTTCTAAGTAAGTAGGGTGAAAAGAAAGTCAGGGGCTGCCTAGGGGAA
GCTACATTTGCTTCTCAAGGCTTGCACCTGCATATTTTCATGCCCGACATGTTGCTGAACA
CAGCCGAGTAAAGTGCCAGAATAAAATCAGCTCTGTCCACGTGGTACCAGGAATGCTGCT
GAAATGAAGGTAAGTATAGGATTCCACAGGATCTAAGACAGTCCAGGGAAGTGGGACCAA
TTGTGGGAAACCTCAAAGCTGAGCATATTTGAAGAAAATGCAGAGTAAAATGGCTATGGG
CTGCCGGGAGGCCTGGATTTGAGATACCAAGCACCCTGATATAAACACTGATGCTCAGA
AAAAGAAATGATGAGTGTGTATTTGTGTCCCTTGAGACCTAATTTAATTTATAATTATTC
ACCAGAGATAAGAGGCAAGGGATGTCTACTTGCTGGATATCTGAATTTACACAGTTCTCT
AGTCATTAGTATTTTTTACAAATATACCACTCAGACTAGGGGGGCAGAGGATCTGGGGTT
TNAATTTCAAGACCTGTCACCTATCTGCATGAATTTTGNAGCTTATAAGAAGTTACAGGT
TAACCTTTTTT

Sequence 247

TGTCGACCCCGCGTCCNTNGTATTTATAAANATAATNCTGNTAGATAAATAAGTGATTCA
TATTTTGTCAAANCTATTTTAAAATTTCAATATTTAAAATATTNTGAATCACTGGGTGT
CGNTAAGTGGCATCATNNATGAGATTTGATTCCATGTACCATATAATNTTAGATTGGTCC
TNTCTACCCCTTTTAACTCCTTCAAGCATTGCTATTACTGGGGTTGCCTTTGGGAAAA
CTTACTTCTAGATACTACCATATATCTGAAATAGTAGAGGTGGATGTTAATAAAATTCAT
AAAATNATCATGTATTACTTTTTTTGATTTACCACTGGAAGGAAATACAGNCATGTGCAA
TATAATGACCGTTTTTGGTCATNGAGACCCACATGTGTGACAGTGGTCCCATAGGATGNG
GCTGAAAANNCTCCTGTTGCNGCCTAGTGACACTGTAGCCATNGNAACNCCATAGCACGAC
ACGTNACTCACCTNTTCATGGTGATGCTGGTGT

Sequence 248

CCCCGCGTCCGATTTTGAATGTATTGAGACTAAAGTTCCTTTGAAACATTAAAGAAGATC
CATCAAAGTGGCAACTGTATATAAGGTCTGATATCTTCTGGCACTCAGAGGGAGAGTTTC
TGGTGGAGGTGGAAGTGACTTAGGAGTCATCCATGAACATAAATGAGATCACTCGTGTAG
GGAAGAGTTAATGAGATTAGAGAGCCTTGGACAGAGCCTTGCAGCCCAAACCCATGAAAG
AGCAGTAATAGTGAGTGAATTACCTTCTGAGGCAGTGCAAAGTAGATAAGAAAACAAAAN
CTNNAAAAAAAAAAANAANAAAAAAAAA

Sequence 249

CCGCGTCCGAGTGGTNGTGATCTCGTCTCCTGCAACCTCTGCCTCCAGGTTCAAGCAA
TTCTCCTGCTCAGCCTCCCAAGTAGCTGGGATTACAGATTATGTCTTGTGTTANNGAAA
TCATTCAATTTTTCACCAGAGAATAAGGAAAAGCAAATTAGACTGTGAATAAAATCTCCA
TGTACCCACTAGGATGACTACAATTCAAAGGCTGACCTATCCAGGTGAAGATGAGAGTG
TGCAGCATTGGAATTTCTTACACATTGCTGGAGATTTAGAAGCTAAAGAAAGAGGACAAA
TGATTTGGAAGCAAAGATAAGAAGGAAGAAGGAGATGGGGTCTTGCCATGTTTCCAGGC
TGGTCTCAAACCTCCTAGATTCAAGTGATCCACCTGCGTTGGCCTCCCAAAGTGCTGGCAT
TATAGGCATGAGGCACCATGCCAGGCCTGTTTTGAAATTTACATACATATTTATAAAACAT
ATTTTCAGGATGAGAGAATATACCAAGAAGTTACATAGCATTGTGTATCTGTATAGAATA
AAA

Sequence 250

TCGACCACGCGTCCGGGTGAACGTGGTCACCAAGGCCATGGGTACCCTGGGGGTGAGCTT
ATCCTCCTGCAGCGTCCCTGGTTCCAAACCCACCTTCGAGCTCTCAGCCGACGAGGTGGA
GCTGGGCCTGGGGATCCACGGGGAAGCTGGTGTGCGCCGGATAAAGATGGCAACCGCCGA
TGAGATTGTGAAACTCATGCTCGACCACATGACAAACACCACCAACGCGTCCCATGTGCC
TGTGCAGCCCGGCTCCTCAGTTGTGATGATGGTCAACAACCTGGGTGGCCTGTCAATTCCT
GGAAGTGGGCATCATAGCCGACGCTACCGTCCGNTCCCTGGAGGGCCGCGGGGTGAAGAT
TGCCCGTGCCCTGGTGGGCACCTTCATGTCAGCACTGGAGATGCCTGGCATTCTCTCAC
CCTCCTGCTGGTGGATGAGCCTCTCCTGAAACTGATAGATGCTTGAAACCACTGCAGCAG
CCTGGCCTAACGTGGCTTGAGTCTTCACTACTGGGCGGAAAGCGGAGCCGGGTAAAGCC
CTTGCCGAGCCCCAAGAAG

Sequence 251

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GTCGCCCCGCGTCCGCAAGAAATGATGTTAGTAAAGATACTTTAATTGCGGGGAGTTCTC
TGTTGGCTGGTGAATAAGGACGTTCTCTTTGAGTTCCACCTTTCTTTGAGAAATTTTCAT
GTTTCCTGTACTTTTCCTCTATTATATCATGGAACTTACTAAATCAGCCTGTGCATTCC
GCCACATATCCCTCATGGTGCCTTCCGGTCCTAGCAGCTGAGCCAGGGCCATCAATAA
ATCTTCTTCTTTCCCCAAGATATTCCTAGTTGCTTCTTTACTATTCACTTCTTGTAAAT
CCATTCATCTGTGTGTATCATTTAGGATGCTGGGCAGTTGCATCGCATTTCACCTAAGGT
CACATCCTGATGGGATTTGGTGGGATCCTAGAGCTGGCTAGGACCACTTGTGAGAGCTGA
TTGTTAAATTCTCCGAAATGACGTGACTCAAGTTGTTAGACTGCTTAAAGG

Sequence 252

CCGGTGAAACCTGGAGCTGAAGTGAATTCTCTTAGAGTATATTTTGAAACTGTACTAGGA
CTTTAAACACTTTTGAATTTAAAAACAGCCATAAAATTCCTGTTATACTGAAGGAGTTC
CTGAGGCAGTGTGCCTCTCATTTTACCACCTAAAGTTGCCATAGAGGTCCAAGGAGACAC
TGCTGATAGCAGAAAGTCTTCCAGAAAGAAATTAGGCGACCCACACCAAGCATGTATGGC
TTTGAGTCTTACAGATGGCTTTTTAATAGTTTAGTCTCTTAACCTAAGGAAGTTTCTGAA
GTTCCGGTCAGAGAGTCTAAAAATTCACATTTTACCTAATAAATGATAATGAGGCTATTT
ATCTTGTCTGTCTGGATTTTTTCACTTGACATTTAATGAAATATCCCATATTACCTATAA
TTTTATTTGAAG

Sequence 253

CCCCCGCGTCCGAGATAATGCTGTTTGCTTCCGGCCGCTGTAAATCATAGGTGAAAACC
AGTAGCANGTGCTCACTCAGTGCCTCCAGAAAGCGGTCTGCGGGTCTCAGCTGGGCTGGG
GGCAGTTTTTCATTGGGCAAGGCTTGGGCTTAGCTTGAAGCANGGGCTGGGAGAGGATGG
ATGGGGGTGTGAGAGCAAAAGAAAGACCTGGCTTTGCAGTGATGGCANCCACGTTCAAA
TNNNAGCTCACCCTGACCNGTCGNNTGACGNGCGCCAGGNGTTAGGAGACTGNAACTGN
TTNTGNGTNNNGNNTCCGGNCGTNCATNNNNNCTGCTCAGCATACANANCCTNTTNCNTA
TCNTAATCCTCATACNCATGNCTGNNNACTNTACACTGTTCTACTTATCAATGACAGGTC
AAAAGTGTTATCATNTGTGACNTAGAATGAGTGAAGTACACNCCCTCTTGAAAACATGA
ATGACTTAAAGAATCACCNNTTGCAAAAAATC

Sequence 254

GCCTTCGCCCCCTGCCTCCTCTTGGCTGCGGCTGGTCATCTTCCACCTCCACAGTGGGCC
GAGCTGCCAAACAAGGGGTACACATGTGCCCCCTGACATAGGCCAGGTGGTCTCTGCCCT
CTGTAGCTCCCATGAGAGAGGGCTCCTCGGACCGAAACAGGAGGCCACTGCCCTTGCGCA
CACACCGTGGCCGGGTCTCCTGGGCGGAGCGCTTCCGTGTGTGGGAAAGTCAAGGGCA
GCCCCGAGCCTCGAAGCCAGGCTCCAGCCCCGCGCCATGTTGCATTCCCGCCTCTACT
CCTTGGTAGGCTGGNTGCTTTGAGTGGTTCTTTTAAATCTTTCTGTTGGTTTCTCCTTT
TCCTTTGCCTGGGTTTTGCTTTAACCTCTCTGTTGCAGAGATGCAGAGCACTCAGAGAGC
CTATTTCTATCATCGCTTTTCTATTCTCCACCTAGAACCAGNTGACTGGCCGCCCCGAGTG
GNGTCTCTTGTGTGTGTGGTGCCGTCAAAGCTGTGCAAAGAAATGCTTCTGCCTAGGTTT
CTTCGCGCCCCCCCCCTTGCTTGGCTTTTCTGCCTGCTTACACCCCCGGTTCCTGATCTG
CCCTGGGC

Sequence 255

GCCCACGCGTCCGCAAGANAGCTCCTCAGATTTGTCATAGACTATATTTAAAGAAAGGCC
ACATTTTTCTTATTTAAATGCATTAACAATGCANCCAATTTAAAGAACTGAGNTGGAT
TTGTACAAAAGCAGGGACTAGGTCTGNTTTGTCACTGCTATATCCCAATGCCTAGAAC
CATGTCTGGCAAACATACTGGCATGGGAAGAACATTTCCATAACCCCTGAATGTTCTGTG
CCCCTTTCCAATTAATCCCTACCCTCAGAAGCAACCACTATTCTCATGCTTATTACATTA
GTTTTGCCTCTTCTTGACTTTCATATAAATGAAATCATACATCTAANAAAAAANANAAAA
AAAA

Sequence 256

TCGACCCCGCGTCCGATTTGATATAAATAGTTATGTTACTCATATAGAAATCTCTTCCCC
ATTACACACATACAAACATTTATCTATGAGTGGCTTATAATTGCAAATAAGATGTAAATC
ATGCTCATGATCATTGTCAAAATGTGAAAGATTTTTTCTATACCTCTTTTAGGTTTGT

TABLE 1

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TTTGTTTTGTTTTGATTTCCAGGTGGCATTAAAGACAAGAGGGAATAATATTCATTCT
TACTTCTACTCCCAAGTCACTAGTTTGCTGAATTTAATTGAGTTAAAGAATTGTATCAGT
CTTCTTGGAAGTCTAATACAAAACCAGTTCAACACTAGTTATTCATTCTTTGCTAATTCA
CCAGAATTGAAGGATGGATAAAATGAGAAAGAGAAGTAGTTCTTCATATTATTAATAA
AGAGTTAAATTAGACACTTTGTTGGACTCTTTGGTCTTAATAATTCCTACTCTTTTGAG
GTCCAAAAGTTTTGTCTTGATAAATAATTTAATGGG

Sequence 257

AAGTTGGGAAAATAATTCATGTGAAGTACAGCAAGTGTGTTAAGAGTGATAAGTAAAATGC
ACGTGGAGACAAGTGCATCCCCAGATCTCAGGGACCTCCCCCTGCCTGTCACCTGGGGAG
TGAGAGGACAGGATAGTGCATGTTCTTTGCTCTGAATTTTTAGTTATATGTGCTGTAAT
GTTGCTCTGAGGAAGCCCCTGGAAAGTCTATCCCAACATATCCACATCTTATATCCACA
AATTAAGCTGTAGTATGTACCCTAAGACGCTGCTAATTGACTGCCACTTCGCAACTCAGG
GGCGGCTGCATTTAGTAATGGGTCAAATGATTCACTTTTTATGATGCTTCCAAAGGTGC
CTTGCTTCTCTTCCCAACTGACAAATGCCAAAGTTGAGAAAAATGATCATAATTTTAGC
ATAAACAGAGCAGTCGGCGACACCGATTTTATAAATAAACTGAGCACCTTCTTTTAAAC
AAACAAATGCGGGTTTATTTCTCAGATGATGTTTCATCCCGTGAATGGTCCAGGGAAGGAC
CTTTCACCTTGACTATATGGCATTATGTCATCACAAGCTCTGAGGCTTCTTCTT

Sequence 258

GAGTCGACCCCGCGTCCGCTCTGGAGGAAGCATAGATTAGAATCATGATTTTTATCTATT
TTAAGAGAATAGAAGAACAGAAGGGGTACAATCTTGCAATATTATGCAACTCTTCTGCT
CTAATATATCAAAAACCTTGATGATCCAAGATCATGCAGAACAGCTGAGAAGAAATCAAAG
TAAACAGTGACCTTGACGCCAACAGATCCTGCCAATATGAGATTAGAAGTCTCCATCCT
AGCAAAAAAAAAAAAAAAAAAAAA

Sequence 259

CTGGTACCTGCGAGTCGCTGCAGCAGCTGTGGCAATTGTCACCTTCATCCAGGCCCATCC
CGCTTTGAGGGCCTAGAGAGAGTGGGCCAGAGGTTAACCCCGATTTCATCTGCCTCCCCA
CGCTGGGCATCTGGGTGTGCCAGGGCATTCCCCCGCTGGTCAGACAGGTTTTTGGGCCAG
GGCGGGGCTGACCAGGGTTAATTAGAGGGAACTGGCTAGGAGGAGCTGGGGAGGGGGCTG
GGCAGAGTCCAGGCCTNCAGAGCCCCTGGGACACAGCAGGTGTGTGCTGCCATGGGCCGG
GGCTTGAAGTCTGCCAGACTCAGGCGCCAAAAACGGCGCTTGCGACCTCAGGTCCAGAAG
CCCCGGCAGCAAGCTG

Sequence 260

TCGACCCCGCGTCCGAAACTCTGTCTAGTCTAAACTATTATTCTATACTTCTCATCTCTA
TATGTTAAGGATTGATCTCCAAGATAAATTGTTTTTTGTTGNTTTTTAGGGACAGGATC
ATGCTCTGTTGCCAGGCTAGAGTGTAGTGGAAACAATCATAACTCACTGCAGCCTCGAAC
TCCTGGGCTTAGGTGATCCACCTGCCTTGGCCTCCTGAGTAGCTGGAATTCCAGATGCAA
GGCACCATGCCTGGCTAACTTTTTAAATTTTTCATAGAGATGGGGTCTTACCATCCTGC
CCAGGCTGGCCTCGAGCTCTTCACTCAAGCAGTCCTCCTGCCTCAGCCTCCCAAGGCAC
TGGTATTGCAGGAGTGAGCCACCACGCCAGCCCAAAATAATTNTTTTTAAAGCAAGAT
GTAGAAAAGTGATTATAATATGTTTCCATTTAGGCAAGAAAAAATGGAGAGGACTATA
CCTGTACTCTCTGNACATAGGATCCACAGAAAACCTTCTAATGGATGGTTATCCCTGNGN
GGGAAACTGGGGGACAGGGAATGATGAAGCAGGAAAATTTTACTGGATAAACTTTAGTT
CTGGTGGCTCTTTTCTTCTATCATGNGNATGGTAAGT

Sequence 261

GTCCCGCAAAGCCTTTAAAAAGAGTCCGAATTTCACTTTTACCTTTTGTAGATGTGCAC
GTGTAGCTGTAGAGCTCATACTTACGTTTTCATAGGCATAGTTGATGGATATGTAGGTGT
AAAGTTTATGGTAGTGGACAGGCTGAGAATGGTGTATCTGTGACAAAAAATCTGATGGAA
GTGATATATTTGATATGAAAGTGAACATTTCTTAGTTGGGTGTTATAACTTTTTTTG
GTAAATTGTTTTAGTTTTTATCCTTATTTTACTTATGCTTGGCAATAGATGGTCTTTT
TCCCCAAATCTTCTTCTGAATTCAGGAAACACTGTTTTAGCATTATTTGATTACTTT
GGTTCATTCTTTTCTCCACTCCCATTTATTTGTTTTCCATTTTGTAACTTCTATAAAGCA

TABLE 1
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GATAAAATCTGGAACCTCTAGATCTGACCTTCATGCCTTGCTTTTCTATGGTACTTAT
TCTTTCTGTCTCCTTCTCATTTTGGATTGGGCTTATGAGAGAAATCTTGGGGTTGATCTT
CCAGCTCACTAATTTGATATTCATTTGTGTCTCTTCAGTTACTTAGCTTGCCTGAAAAC
TTTTTTTTCAGCAATTGTGTACTTAATTTTCATA

Sequence 262

CCNCGCGTCCGTGCCCTGGGGCCCCCCTGGGCGAGCATACCCTAGGCGTCAGGCCTGGAG
GTCTCCTCGGTGCCTCCAGCTCTTCTGTGCTCCTCACACTCTGCTCTGNCGCANATTGGC
TGTATTTGTAGGTTACTGCCTTTTATTTCTCACATTTCTTTTTGGTGAGAGTATATCAAT
CAATCAATCATCCTCAGACCTCTATGATAACACTGTGCCCCACACACAAGAAGCTACTCA
ATTAATGTTTGTGTTGTTGAAATGAGAGAAAATATTTGTCTTAGTACAGAAAGAAGATGA
AGCCAACCTCTGATAGAAGCCCACCCATAGACTAGGGTGTTGAGCTGCCTTCCAA

Sequence 263

NCCCCGCGTCCGGTAGTTGCAGAAGCATGTTCTTGAACCTATCAGTCCTGACCTCAGATT
TCATCTTCTTCTGGTAGATGTAGCATACATCTCTGAGTGTTATTAGAGGACCAGNCTAGA
GCCTCATCGTACTCCTTCAGTTACTTCATAATCATCCAGCTCTTTATTTAAATGTTTTT
CTGTTTAAATGGCAGCAATGTTTTTATTTTTGAAATGGTCCCTGACAGCAACAGATC
TTCTCGTGTTAATTATTGAGTCTGTGCTGATTACACAGAATTAAGGATATAGTTTCTAA
AGTACTTCCATTTTTATATATTTAGCATTATTCTGAAAGGCCTGGAAAAAACTATTTT
TTATTCGATTTGAAAGTGAAGTGACATAGGTGGGTCGCTATAGCAAGAAATTACCCTGTA
TTTTCCATCTCTATCATCACAGGCATCTCACAGAATTAGAAGTCGGACATTATTGATGG
ATATATTAGTCATGAATAATTAAAATACATTAAATATAAAATGGGTCAGATACGGGCAGA
TTT

Sequence 264

CNCGCGTCCGGGAGAAAAGAGTTTTATACCTAATTCTTNTGCAAGTGATTACATATTTTT
ATACCCAGGATGTTTCAGCAAGATGAACCTTTATTTTTAGATGTATCTATGGNTTTCCAC
CCATTTTATTAATTTTTAGAAATATAAAAGTGCCCTTTAAATTTAGCTGGGTTAAGATAG
TAAGTTTTAGGCTGAGGCAGGAGAATTGCTTGAACCCAGGAGGCGGAGGTTGCAGTGAGC
CTAGATCGTGCCATTGTACTCCAGCCTGGGCAACAAGAGCGAAACTCAGTTTCAAAAAA
AAAAAAAAAAAAAAAAAAAA

Sequence 265

GATCCTCTAAGTNCCCAATGATCNGAGAAGAAATATGAAAGGGAATTTTAAATATTTTG
AACTGAATGAAGATGAAAATGCCACAGATAAACTTTGCATGGGGNAGCTACATTAGTTA
GCTTAGAGGGAAATTTATATTTTTAAATCTTATATTAGGAAATAAGTCTTACATAAATA
ATCTCAGCTTCCACCTAAGAAGTTCAAAATAAACCCACAGTAAGCNGAAGAAAGGAAATA
ATAAAGCTGAGAAAAAATCAATAAAGTTTAAAGAGAAAAATTAATAGATATCAATGGAAC
AAAAGTTGCCTTTTTTAAATATCAACAAAATTGATAGACCTTTAGCCAGAATGATCAAA
AAAAAAAAAAAAAAAAAAAA

Sequence 266

CCCGCGTCCGCCTGAATTTTCAGAGTCNGTTGAGAAGGTAGGGAGCAGGGATCTCTCAGAC
ACCAACATGTTTCAGCTTTATTATAGATAAGGCTGAATTGATTTCTGGAATNGACCTTAC
TTCCCCACCTCCAACTGCAGGCCTTCCCTTGCAGGTTTCAAGCATGTTAAGGTAAGTT
CACTGCAGAGATAAACAGGGTGAGGACAGGCCAGTCCTAAAAAAAAAAAAAGAAAAAAA
A

Sequence 267

CCGTTCTTTTTCCNAACTAAAGAATGCATAGGACATAAGTTAAAAGTTCATACATAACC
TGGCTTCAAATCCAGTTCTACCACTACCTGAAAACATCAGTTTATTTCTCATCAATGGGT
TGTTATAAAGTACCTAGCATAGGGTATTGCTTAAATGTTAATACTCCCAATCCTGACACT
AATGTTTCAGGGAAGAGTGAAAGAAATCACATTAACCTCCACATTATTGAACATCTTCTGT
GTCAGGCTGAATACATCTTTGTATCCATTGCTTCTGGTTGTTTAAAGACTAGTGTAGAA
GCCTGACATGTAAATCGGTGATTATATAAGATAGTACTGTCTTGTAAATGTGTTGTGCTAG
AGAGGTTAAGTATTAATTATTATGGGAGCTCAGGAGAGGCACCCACTGGCTGCTGGGAGA

TABLE 1
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AGAGCAAAAACCTATATATAAAGCAATTTTAAAGATTTTGGTTCTATAAGGGTAGAATGT
TCGATCCATTAGTGTATCCCAAAGTCCTATACACATGTCAAGATCGGGAAAGCTCACAC
ACACAATAATGCCCAAG

Sequence 268

CGTCCGGCCCCATGCCAGCCAAGTTATGTTGTTTGGTCAATTTTAGATAATTAACAAAAA
AAAATCCTATGTAGTAACATCCTACTAGGAAAGAAGATAAACTCAANTATCCACTGAGTG
GTGACCTGAAACCAAAGAGACATGGAGGGGCAGCCAGTCAAAAGCCACTGCACTCCAGCC
TGGGCAACAGAGCAGGACTGTGTCTGGAAAAAATCTAGAAACATACTCAAATGT
AAACATAAGAACTTAGCATATGGTAAAGTTGTGACTGTGAGTCAGTGCAGAAAAGAATGA
ATCAATCAGTAAATGGTCCTGGGAAAACCGGCTATTTATTTTAAATAATAACAAAATAT
GCTGTATATCATCAATGGATTAAAGATTTATATACCTTCAGCATATGTCCTTAAATGTTT
TAGAATAAAATATATATGAATTCATGTAATTTTGTATGTGAGGGAAGGCCTTTTAGACA
TGACACAAATGTCAAAAGCATAAAAGGAAAGATTTTGAATAAATAATAAAC

Sequence 269

GCGTCCGACAGATACACCATCATTATAGGTGGCCAAATCATTCAAATCGCTGTTTGCTTC
TTCTCGGGCTCTTATTCAAGCTCACGATGCTATTCTCATAGTGATTGCGAATCTCACTGC
ATAAAGGTGATTTTGAACACATCACTTTTCTCCACACTAATGTGTGAGCTTAGCCAGAG
TAGGAGATATATCTTACTTAAAAA

Sequence 270

CCCTTTTTNCGGCCNTNCGGGCAGGTACGCGGGGAGGTCATGCCCGTGTGAGCCAGGAA
AGGGCTGTGTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTTCCGTGGTGCCAT
CTACATTTTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCCGGATGTCAGAG
GTCCTGAAATAAGTCACCATGGGGGAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCA
TTCCGATCGCTTTTTGGCCTTGATGATTGAAAATAAGTCCTGTTGCACCAGATGCAAGA
TGCTGTTGCTGCACAGATCCTGTCACTGCTGCCATTGAAGTTTTTCCAATCATCGGCAT
TGGGATCATTGCATTGATATTAGCACTGGCCATTGG

Sequence 271

ACCGCGNGGCTTCATGCAAGCTGTGGGCATGGNCAACGATCACGAAAATCATTNTTCCT
TTAAATAAAATACAATCCTATNNAAGGAGTNCTTCCATGAGCAACAATCAAATACGTGC
TTATGCTGCGATGCAAGCAGGTGAACAACTGGTTCCTNATCAANTTGACGCAGGCGATT
ACAAGCCCATCAAGACGAAGTCAAAGTTGAATATTGTGGATTATGTCATTGAGATATTC
AAGTGATTAATAATGATTGGCCGATCATCTACTTATCCTGTAGNCGCAGGTCATGAAATC
ATTGGAACCATCACTGCTCTTTGGTTCATGAAGCGAAAGGACTCAAAG

Sequence 272

CCCTTAGCGTGGTGC GCGGCCGAGGTACACCAAGACCAATTGCTAAAATCTTGGATTATGG
AAAATTTAAGTATGAAAGAAAGAAAAACAAAANGTTGAAAAAGAAAAACAATCTTTCAC
AAACAATAGAGAAATTCGTTTATCTTTTGAATCAATTTAAATGATATAAAATCAAAGC
AAAAAAGCCAAAGAATTTTATTAGATAACCGACAGAGTAAAAGTGGCTCTTCGTCTTA
GAGGGCGTGAAAATACAAGACCTGAACAAGGTAAATTAATTTTAAATTCCTTTTTTGATG
AAGNAAAATCGATTGCAAAATTAAGTAAAGAANNGCAATCAGTTTGGTAATTTTAAAC
TCTTCATATTGAACGTGATAAGAAAAAATTACCCAAATTTACTTCTTCAAAACAAATAAA
GGAATTAATTGATTTTGA AAAAATATTNAAGGAAGGAAGAACTAATGCCTAANGCCAA
AAACAAAATCGCACTTTAAAAAA

Sequence 273

CCCTTAGCGTGGTCNCGGCCTTTGTACGAAATTATGACTGTTTTAGCTNCAGGAACAGAT
TTAAAAGTAATTGAAGACGTTTTAAATCTGTTTTGATGCTAAGAACATCGAAAAAT
GAAAACTTGAAAGAACAGAGTTAGCATACGAAATTA AAAACACAAACAAGGAATTTT
GTTTTAGCTAACTTAAAATCTGAGGAAAGTTAATCGAAGAATTTGTCAGAAGAGTAAAT
ATTCTCAAAAACAAGTTTTAAGATTTTGTATTATTAATCTAGATTCTGAAAGAGGAATG
CACAAAATTTTCAAGCCTAGAAAAAATGATAAACACAAATTTTCTCTTCAAAAACCA
ACANCTTCAACAGAAGAAGGTAAAAGTTTTCAAAAACCATTTGTCAAAAACCTTTTGT

TABLE 1
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AAAAAATCAGAAGAAACAGATTCTTCAAAACAAAATGANCAAGACAAAGTGCTAAGAAAA
CCAAAAACTGTAAAAACCAGCAAAAGATCCTAAAGTAGCTCACACAGCAAAAAAAAAAAAA
NAAAAAGTCCTGC

Sequence 274

CCCTTAGCGTGGTCGCGGCCGAGGTACNAAATTATGACTGTTTTAGCTCCAGGAACAGAT
TTAAAGTAATTGAAGACGTTTTAAAAATCTGTTTTGATGCTAAGAACATCGAAAAAATT
GAAAAACTTGAAAGAACAGAGTTAGCATACNAAATTAAAAAACACAAACAAGGAATTTT
GTTTTAGCTAACTTAAATCTGAGGAAAGTTAATCGAAGAATTTGTCAGAAGAGTAAAT
ATTCTCAAAAAACAAGTTTTAAGATTTTTAGTTATTAATCTAGATTCTGAAAGAGGAATG
CACAAAACCTTTCAGACCTAGAAAAAATGATAAACACAAATTTTTCTCTTCTAAAAAACCA
ACAACCTTCAACAGAAGAAGGTAAAGTTTTCAAAAAACCATTTGTCAAAAAACCTTTTGTT
AAAAAATCAGAAGAAACAGATTCTTCAAAACAAAATGAACAAGGACAAAGTGCTAAGAAA
ACCCAAAAACTGTAAACCAGCAAAAGATTCTA

Sequence 275

CCCTTAGCGTGGTCGCGGCCGAGGTANTTNCCTGANCAGTCGAAGTGGATGCCAGACCA
ATGGCCAGTGCTAATATCAATGCAATGATCCCAATGACGATGATTGAAAAAACTTCAAT
GGCAGCAGTGACAGGATCTGTGCAGCAACAGCATCTGCATCTGGTGCAACAGGACTTATT
TTCAATCATCAAGGCCAAAAAGCGATCGGAATGAGAAGGGGGCTTCAACAGCAGGCGGA
TCATTTTCCCCCATGGTGACTATTTCAAGACCTCTGACATCCGGCTCCGCCTCCACCTCT
ACCTCATAATTCCCGAGTCCCAAAAATGTAGATGGCACCACGGAAGAGATAGTAGGCCAC
AAGTGTTACTGGCTTCCCATAAACACAAGCCCTTTCCT

Sequence 276

CCCTTTGAGCGNCCGCCCCGGGCAGGTACGCGGGGAAATGCAAAAAAATCAAATCAATTT
AATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATAT
TTCACCACTTTTAGCAAATGGAGAAGTGCTAAATTACACAATTAATCAAATGGCTGAGTT
AGCTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACC
TACTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAAACCTAAAAAATTACCAGG
AGACGTTATTAGTTTTGAGTATGATTAGAATATGGTAAATCAACTCTAGAAATCCAAAC
TAATATGTTGAAAAAGGCCAAAAAGTAGCAATTATTGATGATGTTTTAGCTACTGGCGG
AACAATGAAAGCGATTATTAACCTAATCGAATCTCAAGGTGCTGGTTGNTCATAAAGTAA
TCTTTTACTTGAATTANGATTTTTAAACCGGAATTGAAAACTTAAAA

Sequence 277

CCCTTTGAGCGGCCGCCCGGGCAGGTNCTTCTAANGTTAAATCCTGAGGTAAGTCAACC
AAACAGGATGTGAATATCCTAATAATAATTCTAAAGTCTTATCTTTTAAATGTTGCTCTG
TAACCAACACCTTTGATTTCTAATTTCTTAGAAAAATCCTTTANAAACTCCGGTTAACATA
CCTTGTAATGATGAATTTGTAGTTCGNGTAATTGNTTAATATTTTTTTCTTCTGATGTT
CTTTTAGTAAGTAGAGTGTTTTCAACTTTTTCAATTGAAATAAATGATGAAAATTTCTCTT
GATAATGTTCTAATTTACCTTTTATAGNTACTNAAGAATTGTTAATGTTTACTTCAACA
CCTTCTGNTATTTGTA AACACGATTTCCGACACGAGACAATATTAATTATCAAATGTAA
GCAATGGATTTCAACACCTACATTTTCCCTTTCTTGCNTTGTATAATTAGGTTNAATAA
ATCCTTT

Sequence 278

CCCTTAGCGTGGTCGCGGCCGAGGTACAAGATAGTNNTCTCAGTAAAAGGTCTATTATCT
AACTTGCCAACTTGTTTACTGAGAGCCCTAAGGAACTAAACTGCCATAATGCCGTGCA
CAGCTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAGTTCCTCAGC
AGGCCTGGCTGAAGGCCCGAGGAGGGAAGGAAATATAAGANCCAACAATAAAAAATAGCACT
AGCAATAANAAGAATGCCATCCCATGGAGCACACCATAAT

Sequence 279

CCGAGGTAATAAATCTNNTTAAATGNNCTAACGTGATATTTTTTAAAGTTTTTCAATTCGG
TTTTAAAAATCCTAATTCAGTAAAAAGATTACTTTATGAACAACAGCACCTTGAGATTGG
ATTAAGTTAATAATCGCTTTCATTGTTCCGCCAGTAGCTAAACATCATCAATAATTGCT

TABLE 1
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ACTTTTTGGCCNTTTTCAACATATTAAGTTNGGATTTCTAAGAGTTGATTTACCATATT
CTAAATCATACTCAAACTAATAACGTCTCCTGGGTAATTTTTAGGGTTTNCCTACCAT
AAATAAAAAGGGGTTTTTTAAAAAAGCTGGCAGTAAGGGTGTCCCAAACAAAGAAAA
CCCTCTTGCGGTCTTGGGACCTATAATAACAATCTGCATCTTTAAGCTAAACTCAAGCCA
TTTGGGATTAATTGGTGTAAATTTAAGCACTTTCTCCATTTGGCTAAAAAGTGGGGNGAA
AATATCTTTAAAAATACAATCCCTTCAATTGGGAAAAATCTTTAACATCCTCTGGATG
GNATTTCTATTAATAATTGGATTTGGA

Sequence 280

TATTTGGTGAAGATCAGCGTTATCAGCATTTTCTACGATTAACGCTGGCCATGCTTTGA
CTGATGAAATCCGCCAAGCTATTACGAGTTGGCGGATTGGGTCAGAGAAAGTCTCAAGT
CGAAATTGAGTTAGTCGAAGTCTGCTTTCAATACGATGCGATAACGTGCTTGACCTGAAT
GAAGTCGCTCAATGGCATCGTTGAGCTGTGACATAGGATAGAGTTCAATTTGCGGGGCGA
TATTTTACGTGCTGCAAATTTGAAGAAGTTGACGAAGTGCTAAAGGAGAACCGTCGGT
GAACCTGTTACTGATTTGGCACCATCAATCAAAGCACCCGACTGAAACTGGGAATAGGTT
CTAAAGTCAGACCTAGAAAAATG

Sequence 281

NGGTACCTCCACCGCGGTGGCGGCCGAGGTACANCCTCTCGGCCCGGCTAAACATCATCG
TCTTGGTAGGTCAATACCNACCACTAATAATGNTCCGCACCCCATTTTTAAGTGAA
GCTGNGAAGCTCCTTTCTATTACTCATCATGCGATAAATAACTATATCCGGTATTAAGCT
ATTGATTCCAATAGTTATCCAGNCTTAAAGGTAGGTTAGGTACCTGCCCG

Sequence 282

CGANAAGCANGATTTTNAATTNTTGCAGCCCGGGGGATCCGNGGAGNNGGGAGAGCCAC
CGCGGGGGAGCGCCAACACGACNNAGAGCGAGNCGNAATACGCGCGCACACNGACCGCNG
ANNAACAAACGNNAGACGGGGAAAACCCNGGCGNCCNCAAAAAACGCCCGNGCAGCA
CAGNCCCCAAAAGCCAGCNAGGCGGAANANCGAACAGGCCCGCACCNAGCGNCCGNC
ACAGNAGCACAAGCCCCGAANGGCGAAAAAGG

Sequence 283

AAACCCCTNAAAAAGTNCCAAGGGGCCGCCAANNCGACTANAGCGAGNCGCATTACGCG
CGCNCACGTGTTTGTCTGNTTAAACGCCGCGACCGGGNNGAACCNNGGCGNNACCCAACAG
GAAGCGCCGCGCANACAAACCCCNACGCCAGCAGGCCGAnnnnnnnnnnnnnnnnnnnnn
nn
nn
nn
AGNGGAGGAAACAGCGCAGCAGAGACCGNNACACANGCCAAC
GCCNAGCNCNCCGNCNACGNCAGCAACCCACCNAAACNCGNCCACGNACGACNGCN
NGCCCCGNCNAANCNCNAAAAACGGGGGCCCCNANNANGGGGACCCGANAAACGNCNAN
NACGGCACCCNCCGACCCCAAAAAACNNGAAAAAGNAGAGAGGGAGCACGNAAGNNGGGC
CAANCGCCCCNGAAAAGAACNNGCGNCCCGCCCNANGAACGAANGGGGANGACCCACGNC
CCNAAAAANAGGGGGACACCCGAGNNACCCAAACGGGGNAACACACGAAACCCNAAG
GCCGGCCGAAACGNGAANGGAACCAACAAGGGGACACANGCCCGAAAACCGGNCCAAAGG
GGGAAAAAAAAGAGCCGNAANNCAACAAAAANCNNAACGGCGAAAGNNNAACAA
AANAAGAAACNCNAAACNCAAGGNGNCACNNNNNCNNGGAAAAAGGGGCCCC

Sequence 284

CGGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATNGGAAACAATAGCTAATAC
CGGATATAGNTATTTATCGCATGATGAGNAATAGAAAGGAGCTTCACAGCTTCACTTAA
AATGGGGGTGCGGAACATTAAGTTAGTTGGTAGGGTAATGGCCTACCAAGACGATGATGT
TNAGCCCGGGCCCGAGAGGCTGTACCTCGGCCCGCCACCGCGGTGnnnnnnnnnnnnnnnn
nn
nn
nn
ACTTAATCCGCTTGACGACAAATCCCCCTTTTCGCCAG
CTGGGCGTAATAGCGAAAGAGGCCCGCACCCGAAC

Sequence 285

CGTCCGTNAGGCCTGTNCTTACGGCTGGGTTTAGAAACCAGCCCATTGAGAAAGACTGAA
TCAGAACATGGATNAAGTGAACCTNATTCTAAGATGACTCGNNTATCCATGTNGATTAATC

TABLE 1
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TNCTGGNTCATAATAGGCCTCTTCCCTTTGATTGAAGGGTCACGTNTAAGTATANAAAAC
ATAAACTGTAAGGTAGAGGAAGCGAAGGATAGCTTNGTATTAATGTTGCGTTAAAGCTT
CAGAGACAAGAACAAGAACTCCTCCACGTGACAGCATTTGAATAGGAGGCGGNGGGT
GCNGCAGCCTGGGCAGCTTCAGTCCCGATTACAATAAAGTACCTTGNGNGTNATTAGTT
CTTAAATGTTTATTTAGAAATGGCATTGATGT

Sequence 286

GCGTCCGGTCACCGCACTGAACTTCGGGACCAAAAGCTTCCATGCCGCGGNCCCCAGACA
AAGGCAGCTTCCCGCTGGACCACTTCGGTGAATGTAAAAGCTTTAAAGAAAAATTCATGA
GGTGTCTCCGTGACAAGAACTATGAAAATGCTTTGTGCAGAAATGAATCTAAAGAAGTAT
TTAATGTGCAGGATGCAAAGGCAGCTGATGGCACC GGAGCCGCTAGAGAAGCTCGGCTTT
AGAGACCTAATGGAAGGGAAGCCAGAGGCAAGGATGAATGTTGAGAAGGGAGCCACAGG
ACCTTGTCCTCCAGCCTGGAGCAGAGCTGAGCCCTTCTGCCACAGNGCAGGGGGACCTGA
CACTCAGCCCGTGCTGGCCCGTG CAGGGGCTCTCCCTGGG

Sequence 287

CGTCCGGTGCACTGCAACTTNTATATNTAACCCTAAACTCCAATAAAACAAATTCAGGG
AAAACCAAGGGTGTATGGGATGTGCGTGTTTATCAGGAGTGTGCTCTCACGTGGATGCT
GAATGATGGAGGACAGCGGACTGCATAAGCCAGAAACCTGTACGGGTGCTGGCTGTGGAA
AGACGTGTCTGTCTCTATCTATGTACAATAGTTNATTCTGT CAGGCTGAAAAAGTATGGT
CTTTAGGACCTTGCCCTCTAACTATAGAACTTAAACAGTGTACTGCTATTAGATATAT
CTGATATTAATAGAACATGCCAAGTGCAGGTCCCAAATGCGTATTTGTGAAGCACACATC
TGAGTAAATGGCTTAGATGGAAAGCAAGTCATCATGAGTAAAAATTAAGCCTCAAACCTG
CCGGTGCTCCTCACCTCTTTGT CACCAGGTAAGGT CACACTGTGTGTTGCTTTGNTGT
CTTCTCTTCTAACCTAG

Sequence 288

CNCGCGTCCGGGGCTTGTTTACTATGGCCGATGATCTGGAGCAGCAGCCTCAAGGCTGGC
TGAGTAGCTGGCTGCCACGTGGCGCCCCACTTCCATGTCTCAGCTGAAGAATGNGGAAG
CTAGGATCCTCCAGTGTCTCCAGAATAAGTTCTTGCCAGATATGTGTCCCTCCCAAACC
AGAATAAAGATCTGGACGGTGA CTGTGAGCCCCGAGCAAAAGGACCGCACCCCCCTGGTG
ATGGTGACGGTTTTGGGGGCGGCGTGGGCCTCTGGATCCTCAACATGGACTCACTGAGT
GCCCCCGGCACACTGCACACCTTCGATCTGCTTGNTTTGGGCGAAGCTCAAGGCCAGCA
TTCCCGAGGGACCCGGAGGGGGCTGAGGATGAGTTG

Sequence 289

NGGAAAGCCGGCATAAGTGACATNGTTTGGGCAGTTGCCNGCTGGACTGAAGGGCNAACC
CANACCACCTTAAGCCATAAAAGCCCGTGACACTGCTANCAAGGTGCCTTGCCCACCGC
TTTGCCACCN GTCCCGGAAATGNAAAAAAGTCGCGTGCCNTAAAAAAGCTGCCGGAAGG
NCCTGGGTGNACNTTTGGGCCACCCCCACCCCGCTGGCAAGGNCTTGAATTGNGTNACNC
CAAAAGACGCCANGCCGGACCTTGGNAAANNATTGTTNTTTNGGGANAAAAAAAATG
GANCCCGNTGGGGGAGGCCCTTGGGGGCATTGNGNAAGCCCCGGAGGGTTCCCGNTGT
TGGCNGGGGTCAAATTCAAAGGCCAGTGGTNGGCCACCCCGGGAACCTGGNNGCTGTTG
CAAGNACCNNGGTGGGGAACCGTTTCAAGGAATACCCCAACCAACCCANGTAGCCACCTT
AAGGTAATTTGGCCACCTTGCCACCANAANGGCCATTGGGGAAGAAACCACCAAAAA
CGTCCCCCGGGT

Sequence 290

CCCCGCGCTCAGTATGACTCTTTAGTCCAGTTTTTCATGGGTAGTCTCTAAATCTTTAC
CTTTATGTGATTGTGAGTTGGGAGGTGGTGGGCATCATCTTAGTCCATTTACCTTTTTCA
GTTTTGTAATTATCGTCTTCATCTACTACCTTTATATAATAAAGGGAAGGGGTCTTCC
TTTACAAATAGTTTTATCATCCTTCTCTTTTGATGTCTATATCTTCTATTTTTTGAGGA
GAATATATGTTGTATAGACCTACACGTGGGTGGAAGAAGAGTCATGTATGTGTGATTGTG
TGAGATCCAGAATGTTGGAACTTTAATTTCTTATTTGTA CTTATAATTACCTGCTGGA
ATACCTGGTTGCATTCTGTATATTGTACCCTCATTTAAAGTTCATGGAGGCAAAATAAC
TCTGTTGCACATAAGGCCGGGGCTTATGCATGTCCTATCGGATGTGGGCTCAGATCACGG

TABLE 1

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AAGACCCGAA

Sequence 291

TCTTGCAGACTCAAGCTCCGCGCGCAGCCGCTCCTGGTGCGGGCCACAGCAGCCTGGGC
CCCGGNTCGGCCCCGGAGCCCCCTGGCCTGCGACGACTGTTCCCTTCGATCGGCCAAATC
CTCCTTCAGCCTCCTGGCGCCCATCCGCAGCAAGGACGTTGCGAGCAGGAGTTACCTGGA
GGGCAGCCTNCTGGCCAGNNGGGGCCCTGCTGGGGGCAGACGAGCTGGCCCGCTACTTCCC
AGACCGGTACGTGGCGCTCTTCGNGGCCACCTGGAACATGCAGGGCCAGAA

Sequence 292

NGGCCCGCCCGGGCAGGTAATAACTTTAATTAATGAGCTAACGTCATATTTTTTAAGTT
TTTCAATTCCGTTTAAAAATCCTAATTCAAGTAAAAAGATTACTTTATGAACAACAGCAC
CTTGAGATTTCGATTAAAGTTAATAATCGCTTTCATTGTTCCGCCAGNTAGCTAAACATC
ATCAATAATTGCTACTTTTTGGCCTTTTTCAACATATTAAGTTTGGATTCTAGAGTTG
ATTTACCATATTCTAATCATACTCAAACTAATAACGTCTCCTGGTAATTTTTTAGGTT
TTCTTACCATAATAAAAGGTTTTTTAAAAAAGCCTGCAGTAAGGTGGTCCCAAACAAGA
AAACCCCTCTTGGCTCTGGGACCTATAATAACCATCTGCATCTTTAGCTAACTCAAGCCC
ATTTGATTAATTGGNGTAATTTAGCACTTCTCCATTTGCTAAAAGGTGGTGAAATAATCT
TTAAATACAATCCCTTCAAATTGGGGAAATCTTTTAAACATCCCCCGCGGTACCTCGG
GCCCGCTTCTAGAACTAGTGGGATCCCCCGGGCCTG

Sequence 293

GCTCCCCGCGGTGGCGGCCGCGCGGGCTGGTACGCGGGGAAATGCAAAAAATCAAATCAA
TTTAATACGAATACATCATGAGATGTTAAAGATTTCCCAATTGAAGGGATTGNNTTTAA
GATATTTCAACCACTTTAGCANATGGAGAAGTGCTAAATTACACAATTAATCAAGTGGCT
GAGTTAGCTAAAGATGCAGATGTTATTATAGGGCCAGACGCCAAGAGGTTTCTTGTGTTG
GACACCTACTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATT
ACCAGGAGACGTTATTAGTTTTGAGTATGATTTAGAATATGGTAAATCAACTCTAGAAAT
CCAAACTAATATGTTGAAAAAAGGCCAAAAAGTAGCAATTATTGATGATGTTTTAGCTAC
TGGCGGACAATGAAAG

Sequence 294

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACAATTTCTAATTG
ATCCTGTTACATTCAGTGAATGGCATTGCATATTTATATGTTGCTTACAGCTTATTGA
TTTAGGTAATATTGTGTCTTCTTCACTATCTGACCTGAAAAGCACTCTCTTCTCTATG
CACTCTTATATTCTGCCTTTCTGCCTGGAGTTTGAATACATGTCTCTTTAGTTTCTTT
GCACATGCTACATTGTGCTTTAGACCGGGAGATAATACAGGNGCCTTACCTTACAAATTN
ATNTTTNTGGCAACNCNAATTNTNTNGAAATTTTNTTTAATTTNAAAACCCCAACCAA
TTTTCCNNCNAAAAAATTTTTTTTTGGGAAAAATTAANTTCTTTAAANNNAACCCCCCN
AAAAATTATNNGGNNAAGGGNGCCCNNTTTGGGCCCTTTTTTTTTTTCNCGGGNG
GGGNAAAAAATTTNAAAAAANTTTTTTTGGGNCCCCGGGAGAAAAANNTCCCTNTT
TTTTTTTTCNGGGGTTTTAAAAANGGGGGGNAAAAATNTTNTTGGCCCCCCCCNTTT

Sequence 295

TATAGGGCGAATTGGAGCTCCCCGCGCGNGGTCCCAAATGGAAGTGTGAAAACCANGGCC
CATCCCCCNNTTTNTAGAGGGGTGGTAAAAAATAAACCANANATCAAGGGGAGAAAGG
AAAAGGATGAAAGGACAACTGCCAAAAAATTTNCCCAAAGTGGCGACTTTTTTAANTN
TGGGAGCCAGAATTCTGAGGGCTTTGCATTGTCTTTGCAATTCNCTCAAGGAGCCTGAAA
TTGAAAAAAATGCCAACAGGCCAAATNACTACTTTTTAGGAGGGGGTTTTGGAGGTC
TTGGGAAGCCTCATTTCCNTTCAACCNNTCNAATTCTGGGAATGGGGGAAATGGAAAGAA
TAGAAGATGTTGGGTGCCCACTAGGCTACTGNTTGAAAAGGGGAAGCTTGAAAANTTNT
NCACCCAAGGTTGGGTATTCAAAAATATTGTAATGGACTGGGTATTGGCAAAAAGG

Sequence 296

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACAGGTGGGTCCCTTTTCAGAGGT
TGGGCCCTTCTAGACCTCACCTGTTCTCACTNCCCTGGTTTAAATTCAACCCCAAGCCATG

TABLE 1
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GCCAATGGCCAAATAATAGAAATTGGTTCCTACCCAGCTGGACCAGGGGAGGGAGGTCT
TGTGCAGTTTCTTGACCACTTTGTTGGTTGGACCATNGGCTTAAATACCAATGGGGTATT
CGGCTTGAGACCTAAAGTTTGTAAAGAAAATTNAACCAAAATGGTGCCTGCTTGGGTAA
AATGGGCTACCACCTCAATCTGGACTTCAATTCTTTAATTCTAATTTAAGTTTGGGT
TTGGTATTCTTTGGCCTAAAGGTGGCGGTAGTCCCAACCTCTTGGGTANTTACCCCTTC
CTAAATAGGTCAATACCTAGGTAGGTCAATACCTCCCTGGGTGGTAAGGNGGTATTTCTT
CTTAAAAAAGCCTTTTAAAA

Sequence 297

CCGCGGTGGCGGCCGCCCGGGCAGGTACGGCCACACTGGGACTGAGATACGGCCCAGACT
CCTACGGGAGGCAGCAGTAAGGNNTTTTCCACAATGAGCGAAAGCTTGATGGAGCGACAC
AGCGTGCAGGATGAAGTTCTTCGGAATGTAACTGCTGTTATAAGGGAAAAAAAAAAAA
AATAANNAAAAAAAAAANGGTACCT

Sequence 298

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGNCAGGTACGCGGNGAAATGCA
AAAAATCAAATCAATTTAATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGG
GGTTGTATTTAAAGATATTTCAACCACTTTTAGCAAATGGAGAAGTGCTAAATTACACAAT
TAATCAAATGGCTGAGTTAGCTAAAGATGCANATGTTATTATAGGTCCAGACGCAAGAGG
TTTCTTGTTTGGGACACCTACTGCAGCTNTTTAAAAAACCTTTTATTATGGTAAGAAA
ACCTAAAAAATTACNAGGAGACGTTATTAGTTTNGAGTATGATTTAGAATATGGTAAATC
AACTCTAGAAATCCAACTAATATTTTGAAAAAG

Sequence 299

CCGGGCAGGTACGGCCACACTGGGACTGAGATACGGCCCAGACTCCTACGGGAGGCAGCA
GTAAGGAATTTTCCACAATGAGCGAAAGCTTGATGGAGCGACACAGCGTGCAGGATGAAG
TTCTTCGGAATGTAACTGCTGTTATAAGGGAAAAAAAAAAAAAAAAAAAAAAAAAAAA
GTACCT

Sequence 300

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTCTAGGACAATCAGGAAG
TAATCTTAAAAAATAATTGAAGATGTTAAAAATACGTTAAAAATAAAAACTTGTTTT
AAACATAGATGCAGTAGAAATTGAAAAACCAGATTTAGATGCAAAATTATTAGCTGAATC
AATTGCAATTAATTAGAAAACCGTGGATCATACCGTATGGCACAAAAATTGCAATTCG
TTTAGCACAAAAAGCCGGAGCTAAAGGTATTAACCTAAAGTTAGTGGTCGTTTAAATGG
TGTTGATATGGCTAGATCAGAAGGATATTCTGAAGGTGAAATGAAATTACACACACTTAG
ACAAGATGTTAGTTATGCAACAGCAACGCAAGAACAACCTTATGGAGCACTTGGAGTTAA
AGTTTGAGTTTCATTAGGCGAAGTATTT

Sequence 301

CCGGCCAGGTACGCGGGGAAATGCAAAAAAATCAAATCANGNTAATAGAATACATCAGAG
ATGTTAAAGATTTCCCAATTGAAGGGATTGNATTTAAAGATATTTCAACCACTTTTAGCAA
ATGGAGAAGTGCTAAATNACACAATTAATCAAATGGCTGAGTTAGCTAAAGATGCAGATG
TTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACCTACTGCAGCTTTTTTAA
AAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGGANACGTTATTAGTTTNG
AGTATGATTTACAATATGGTAAATCAACTCTAGAAATCCAACTAATATGTTGAAAAAG
GCCAAAAAGTAGCAATTATTGATGATGTTTGTAGCTACTGGCGGAACAATGAAAGCGATTA
TTAACTTAATCGAATCTCAAGGTGCTGNTGTTTATAAAGNAATCTTTTACTTGAATTAG
GATTTTTAAACGGNATTNAAAACTTAAAAAATATGACCGTTAGCTCATTAAATAAAAG
TTTAGTACCTCGGCCCGCTCTAG

Sequence 302

AGGTACTTTGATATCTNCGCCCTCTCGTGTGTTCTTGTTGGNGNTAACCAGAGGCAAGAT
GCCCCAGGAACCTTCATGTGTATGTCTACCAGGATTTAGATGATCTCTAATAATGGAGGA
CCTGCTATTATTTGTAAGAGTGCCAGAAAACATGAAAGGTGTTACAGAAGATGGCTGG
AACTGCATTTCTTGCCCTAGTGACTTAACCTGCCGAAGGAAAATGTCACTGTCCCATTTGGC
CATATTTTGTAGTGAAAGAGACATTNATGGAACATTGNTGNCTCAAGCAACTNGNGAGCTC

TABLE 1

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TGNGATGGAAATGAAAACCTTTTTATGGTAGTAAATGCTTTAGGAGACAGGNGCGTNCGA
TGTGAGCCAACATTTGNTAATACCAGCAGGTCCTGTGCATGTTNCGAACCTAACATTTTA
ACAGGGGGATTATGTTTCAGNAGCACAGGGAATTTTTCCTTGACGTANAATTTACCTG
CACGTTATGGAGAAGTTTGGCAT

Sequence 303

CCGGGCAGGTACGCGGGGAAATGCAAAAAATCAAATCAATTTAATAGAATACATCAGAG
ATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATATTTCACTACTTTTAGCAA
ATGGAGAAGTGCTAAATTACACAATTAATCAAATGGCTGAGTTAGCTAAAGATGCAGATG
TTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACCTACTGCAGCTTTTTTAA
AAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGGAGACGTTATTAGTTTTG
AGTATGATTTAGAATATGGTAAATCAACTCTAGAAATCCAACTAATATGTTGAAAAAAG
GCCAAAAAGTAGCAATTATTGATGATGTTTTAGCTACTGGCGGAACAATGAAAGCGATTA
TTAACTTAATCGAATCTCAAGGTGCTGTTGTTTCATAAAGTAATCTTTTTACTTGAATTAG
GATTTTTAAACGGAATTGAAAACTTAAAAAATATGACGTTAGCTCATTAAATTAAGTTT
AGTACCTCGGCCGCTCTA

Sequence 304

GCGGTGGCGGCCGAGGTACCTTNTCCGAATGCACCTTNAAGCGGGTATTAGCCTATACA
GGCTGTTTTAGTCGAATGCAGACCATCAAGGAAATTCNNGAATATCTATCTCAAAGACTG
CGCATTAAAGAGGAAGATATGCGCCTGNGGCTANTCCANAAGTGGAGAANTACCTTACTC
TTTCTGGGNTGATGAGGAATCATAAATCTGGAATATTTNGAAAAATCCAGGATGAACAACA
C

Sequence 305

GCNGNCGCGGGGAAATGCAAAAAATCAAATCAATTTAATAGAATACATCAGAGATGTTA
AAGATTTCCCAATTGNNGGGATTGTATTTAAAGATATTTCACTACTTTTAGCAAATGGAG
AAGTGCTAAATTACACAATTAATCAAATGGCTGAGTTNAGCTAAAGATGCAGATGTTATT
ATAGGTCCAGACGCAANGAGGTTTCTTGTTTGGGACACCTACTGCAGCTTTTTTAAAAAA
ACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGGAGACGTTATTAGTTTTGAGTA
TGATTTAGAATATGGTAAATCAACTCTAGAAATCCAACTAATATGTTGAAAAAAGGCCA
AAAAGTAGCAATTATTGATGATGTTTTAAGCTACTGGCGGAACAATGAAAGCCGATTATT
AACTTAATCGAATCTCAAGGNGCTGGTGNTCATAAAGTAATCTTTTTACTTGAATTAG
GGATTTTTNAACCGGAAATTGGAAAAA

Sequence 306

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGCGGCAGGTACGCGGGGCAATTA
TGAAATTATTGCAGAAAGAAGATTCACTCTACCTGATGAATAAGTGTTTCATAGGTNAAG
GCTACAAAATACTAATTTGTTATTATTTTAATAATAATTTTTGTTTTGCTGAGAAAGTG
GATTTACCACTTTTTTATTTTTAATCCAAGGAGGAAAAATTATTTCCAAACCAAATCCT
AAAAATTTTTACGTTCTAAACCAGTTCAAGAACATTGAGTAAACAGAAATATTCCATTT
GTCAAAGTTTTTCTTATCGGCTCAGATAATGAAAAAATTGGGATAATTGAAACAAGAGAA
GCTATTGAAATGGCAAAGAACAAAA

Sequence 307

CGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGCAGCAAGCGGACGTGAGC
GATAATGGCGGATATGGAGGATCTCTTCGGGAGCGACGCCGACNGCGAAGCTGAGCGTAA
AGATTCTGATTCTGGATCTGACTCAGATTCTGATCAAGAGAATGCTGCCTCTGGCAGTAA
TGCCTCTGGAAGTGAAAGTGATCAGGATGAAAGAGGTGATTGAGGACAACCAAGTAATAA
GGAAGTGTGGAGATGACAGTGAGGACGAGGGAGCTTCACATCATAGTGGTAGTGATAA
TCACTCTGAAAGATCAGACAATAGATCAGAAGCTTCTGAGCGTTCTGACCATGAGGACAA
TGACCCCTCAGATGTAGATCAGCACAGTGGATCAGAAGCCCCTA

Sequence 308

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAATGTTATTAATGTGACTGACA
AGTAATTAGAAAACCTGGAAATTAATTTTACAAACATTTTAAAAATCGCTNCAATTAATAA
AAATTCAAGATGGTTACATTATGAATATGAATGAAATGTCATTAGCGACTTCGTTAAATG

TABLE 1
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TATATGTAATTCTATATTTTCCCCAAAACCCACATTTTATGAAGAATATTTATTTATTTA
TTTATTTTTGTTTTTGAGATGGAGTCTCGCTCTGTTGCCAGACTGGAGTGCAATGGTGC
GATCTCCGCTCACTGCAACCTCCACCTCCTGGGTTCAAACGATTCTCCTGCCTCAGCCTC
CCGAGNAGCTGGGACTACAGGCACCGNCACCACGCCCGGCTAATT

Sequence 309

CCGCGGTGGCGGCCCGCCGGGCAGGTAAGTACTGACCTCCTTGATGGTTTACTTTGCAAGCTA
TGGTGACCTCCGCAAGTTGTGTCTGGGCCCATCCAGGGCTCTGACTAATTGTATTCAAAT
CAAGGCAGGAGCGGGCCAGCTGGCGTTGACTTAACCAAGCCATTTTATAAGCCTCCCGAT
CATTTTTAAGCCACTCTAAGTCGTGTAGTAGGATCTGGTCAGAGTTATGTATACTCTGAT
GGGCATGTGCTGTGTCTGTCTAAAATGTCCAGAAGTTCTGAAACACTTTTAGATCTTCCAG
AATTTCTTGAGGAAGTCTGCCTAAGTAAGTATGCACATCAAGTTCATCACCAGGAGGAAT
CAAAAGAATTTCCATTTTCTATTTCTCTACAGAAAAGAAAAGGATCTTCCTTTAAGATGG
AAATATTATTTCTCTTC

Sequence 310

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCACTTGAATTATCTA
TTGAAAGAACTACTACATCGAGTTTTTGTCTTTTGCCATTTCAATAGCTTCTNNTGGNN
NAATTATCCCAATTTTTTATTATCTGAGCCGATAAGAAAACTTTGACAAATGGAATAT
TTCTGTTTACTCAATGTTCTTGAAGTGGTTAGAACGTGAAAAATTTTAGGATTTGGTT
TGGAAATAATTTTTCTCCTTGGATTAAAAATAAAAAAGTGGTAAATCCACTTTCTCAG
CAAAACAAAAATTATTATTAATAATAACAAATTAGTATTTTGTAGCCTTTACCTATG
AACACTTATTCATCAGGTGAGAGTGAATCTTCTTTCTGCAATAATTTCTAATTGCCCGN
GTACCTGCCCGGGCGGC

Sequence 311

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGNCAAGGTACCTGACTGTGGC
TCANATCTGCGTCGCAGCAGCGAGAGAAGAAATCACTCCATATCCGATGAGAGGAAGGGT
GGCACAGANATGGTGTCTACAATTAGAGACATTTCTGACTCCACCTTAGCCTAAGCAAAC
TTTATATACTGAGTAACATTTGAAGGTTGTCTTTAATGGTGGGGGGTGNTTTTTCTTT
TTAAACTACAGT

Sequence 312

CCAAAANGGNCCTGGGGCGTGGTCACGGCCNAGGTACAAAATTATGACTGTTTTAGCTC
CAGGAACAGATTTAAAAAGTAATTGAAGACGTTTTAAATCTGTTTTGATGCTAAGAAC
TCGAAAAAAATTTGAAAACTTGAAAGAACAGAGTTAGCATACGAAATTAANNAGCACAAA
CAAGGAATTTTTAGCTAACTTAAATCTGAGGAAAGTTAATCGAAGAATTTGTC
AGAAGAGTAAATATTCTCAAAAAACAAGTTTTAAGATTTTTAGTTATTAATCTAGATTCT
GAAAGAGGAATGCACAAAACCTTTCAGACCTAGAAAAAATGATAAACACAAATTTTCTCT
TCTAAAAAACCA

Sequence 313

AATNGGGCCTNGCGTGGTCACGCCAGGTACNAAATTATGACTGTTTTAGCTCCAGGAAC
AGATTAAAAGTATTGAGCNTTTAATCTNTTTTGATCTAAGACATCGAAAATTGAAAACT
TGAAAGACAGAGTTAGCATACNAATTTAAANGCACACAGGATTTTTTGTCTTACTAACT
TAAATCTGGGGAAGTTAATCNAAGATTTGTCAGAAGAGTAAATATTCTCAAAAAACAAG
TTTTAAGATTTTTAGTTATTAATCTAGATTCTGAAAGAGGATTGCNCAAACTTTCAGAC
CTAGAAAAATTGATAAACACAAATTTTCTNTTTTAAAAA

Sequence 314

NGGGCCTNGGNGTGGNNACGANCCAGGTACTTTTACCAAAGAATCTACTAGAACTCTCTG
CTATTCAAAACAAAGAGCTCATACTTGTGGAGTAGGGAAAAAATTAGAAATTTGACCAA
AAGATAGATTCAATCAACTACAAAGTCAATTCCAAGATGCTGNTAACATCGAACTCTTG
AAAAAGAACTATTANAATCTGGAGTTGAACTTTAATGGATCATATACCTGNTTGTCTGA
TCAAGCGGATTGNTCAGCTTAATATTAAGAAGATGGNATCTATTTAGATCTTACTTTAG
GACGNGGNGGNCATTGAGNCAATTTTAAAAAACTTACTA

Sequence 315

TABLE 1
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CCCTTTGAGCGGCGCGCCCGGGCAGGTACTTGTCCATAATTTGTGAATATATTAATAAT
TTTTCTTTGAGTATTCATTTACTAAGCTGAAAAGCTTTGAGCTTGATTCATT
CTCATATCCAAACGAGCTTGTTTGTGTATGAAAATCCTCTATTGGCTTGATCTAACTGA
GGTGAAGATACTCCTAAATCAAGTAATACACCATCTACTTTGTTGATTTGAAGTTTTTT
AGTTCTTGATCAAAATCTTTAAATCAGATCAAATAAATTCAATATTTGAAGAAATTTT
AAGAGTTTTCTTTGTTTGTTCATTGCTTGTCTTTATCAAAGACTA

Sequence 316

CCCTTAGCGTGCGCGGCCGAGGTACAGGAAGTCCAAAGGCAACAGAAATCTTTCTC
CCTATGTCCAGCCTACCCCACTTTACCGAGGCCAACAGCCGCTCAGAAACCAGATTC
AGGAGCTAACATGCCCCAGGTCTCACGAGGATCAGAGACTCCAGAGGCCAGGGAAGGAGA
TCAAGGTAGTCAAGCGGGGGTCTGCTCAGATCTGGTTGTGCTCGAGCTATGCAAATGCCT
CTCATGGAGATGTGAGGACCTATCTATTATGATGACCAGGGCCACATCCGGAGGGGGCAA
CAGACTTTCATCTATCAGCCCTTTCAACCACTGATCTACTAACTGGAAACACTCTGAA

Sequence 317

NGGGCCTTGNGAGCGGCGCCCGGGCAGGTACGCGGGGGTTTAAAAAATATTTAAAAA
ATGGAGGAATTATGAACTTAAAAAGCAAATTAAGAAGCTTTTAGGTGCTACTGCACTTG
TGTTGCCAGTAGCATTTTTGCTTCTTGCCAAACAAGATTTGNNNAAGTAAATGACCATA
AATTAGTGATTGCTCACACTTTAATAGTAGAGAAGGAAGGTTTTAGCATTAGATCAAA
TTGTTAAGCTTTGAAATGAAAGTAAAAAGTTAAAAACAAAGAAGAAGGATTTTATCCAA
TAACACTAAATCGACAATTTGCGCAAACCTATGCAGAA

Sequence 318

CAGGTACTTTAGCTCCAAAATCAGTTTGATGAGATACAGTTGCCCTATATGAGAATGCA
CAGGATTCCTCATTGGTGAGTTCAACCATACATTTGGGTAACTCCTGAAGACATCTGCA
AATTGTGAGTTAGTTGGTGGGGTCCATTAACTTTGCATATGTTATTCTTTCTACTGAAG
TGTGTGAGGCCACAACGTCCCATATGCATATCANAAACAGAAATTTGTTGAGGATAAT
TTGGATATTACGAGNGGCTGNGAACTGGATTGAATTACCGGGATACATGCATGCTT
CTTGGTT

Sequence 319

CCCTTAGCGTGCGCGGCCGAGGTACGCGGGGCAATACGTAGAGATAATAACAGTTTTT
TAAAAACTTAATATTTGTTATTGAATGTATATTTTGAGTATTGCATCTTTCTATACT
AATAAGGAGGTGTAATTTGAACGCTTTAGAAAGAAAAAGAAGAAATAGTGCAAGAAAT
TAAAGATTTGATTAATCTTCTTCTTCATTAGTTATAGCTGAATATCGTGGATTAACAGT
TGCTGAAATTGAACTCTTAGAAATGAAGCTTAAAGAAGCAGGTGTTTTGTAAAGTTT
ATAAAAAAGACTATTTAAATAGCATCTAAAGAAGCAGGTTTCGGAGATTTAGAACAAT
CACTAGTTGGTCCAAATTTTTTGTCTTTGGTTCTACAGATGCANTAGCTCCAGCTAAAA
TTATTTCAAATTCGCTAAAAACAAATCCAGTAAGTTGTATTAAGGCGGTATTTTTTG
A

Sequence 320

CCCTTAGCGTGCGCGGCCGAGGTACCACGGAATTTTAAAAATAGACTNTAAAAACCN
TCAATTGCANAATAATTTGNTTGATTTACTTCAAATTGAAGGAAGCTTTTAGGTTTT
GTTGNAATAGTAAANGAAATTCGATNAGTAATCAATCAAAGAATAATGAATNGACAAAT
TCTGACATAAAAAACAGCCAAAGAAATATCATTTAGAACAATAANAGCGCTTAAAAAACT
TCAAATTAACAAATATAATTTATAATTTATGGCACTATGAAAAAAGNGACTTTATTTA
ATATCAACTTTTANCATTTTCAACAATTTTATTAGCTATTNCTNGTGGTAAAAATCAAAT
ACTCCTGTAGGCACACAACCANTTGATANTCCAAGCCTGGAGGATTCATCAAGNGAATCA
ANAGTTCTGGATTTAAATTAATAGAAAAAAG

Sequence 321

CCCTTAGCGTGCGCGGCCGAGGTACAATTTCTAATTGATCCTGTTACATTCAAGTGAA
ATGGCATTGCATATTTATATGTTGCTTACAGCTTATTGATTTAGGTAAGTATTGTGCTT
CCTTCACTATCTGACCTGAAAAGCACTCTCTTCTCTATGCACTCTTATATTCTGCCTTC

TABLE 1
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TGCCTGGAGTTTGAAATACATGTCTCTTTAGTTTCTTTTGCACATGCTACATTGTGCTTT
AGACCGGAGATAATACAGTGACTTTACCTCACAAATCATATTCTGTCAACACAAATCTAT
GAATTTAGTTTATTTAAAATCAGAACAATTTCTACAAAATTTTCTGGAAAATAGACTC
CTAACAGACCTACCAGAATCATGCTTAAAGGGCTCCCTTGACACTTATTCTATACTGAAG
GATAAATTTTAAAAAAT

Sequence 322

CCCTTCGAGCGGCCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTAGTTAA
ATATAAATTTATTTATTAACCTTTTCAATACCTTTTGAAGGTCAAAGTTTGTAGATGAA
TTAGGTTCTTTTAAAAGTAAATCCCACAAGTCAAAGTGCAGCTAGAATAATAAATACTG
CATATGCAGCTTCTGTTGATGCTGATTTAATTCCTGCAACTAGAACAGTTGCTATAGAAT
AAAATGCATAACCTAATCCTCANATAAGTCCAAATTGATATCCAACCTTTTTTAGGATTTG
ATCCTTTGATTTCGGGAGGAAGATTTAAGATAACACCTTGAATTCCTCAAAGCATTACTC
CCATTAAAAATCCTAAAAATAGAATAATCAAGTCCATTACCTA

Sequence 323

GCGGTGGCGGCCCGCCCGGGCAGGTACAAGGTAAAGCAAGAGCTGGCTCTCTACGTTCCACC
AATTTTTGTAGGTGGTGGTTCGTGCATTTGGGCCTACAAATAATAAAAATTACAAAATTAA
ATTAACAAAAAAGTTCGCAAATTAGCTTTTGCCTCAGCTTTTAAGTCAACTTGCTCAA
ATAATCAAGTACCT

Sequence 324

NNCTTAGCGTGGTTCGCGGCCGAGGTACGCGGGGAAATGCAAAAAAATCAAATCAATTTAA
TAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATATTT
CACCACCTTTTAGCAAATGGAGAAGTGCTAAATTACACAATTANNCAAATGGCTGAGTTAG
CTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACCTA
CTGNAGCTTTTTTAAAAAAACCTTTTATTATGGTAAGAAAACCTAAAAAATTACCAGGAG
ACGTTATTAGTTTTGAGTATGATTTAG

Sequence 325

CCCTTCGAGCGGCCCGCCCGGGCAGGTACTTGTCCATAATTTGTGAATATATTAACATAAT
TTTTCTTTGAGTATTCATTTACTAATCATAAGCTGAAAAGCTTTGAGCTTGATTCATT
CTCATATCCAAACGAGCTTGTTTGTGTATGAAAATCCTCTATTGGCTTGATCTAACTGA
GGTGAAGATACTCCTAAATCAAGTAATACACCATCTACTTTGTTGATTTGAAGTTTTTT
AGTTCTTGATCAAAATCTTTAAAATCAGATCAAAATAAATCAATATTTGAAGAAATTTT
AAGAGTTTTTCTTTTGTGTTCAATTGCTTGTGTTTATCAAAGACTA

Sequence 326

CCCTTAGCGTGGTTCGCGGCCGAGGTACAGGAAGTGCACAAAGGCAACAGAAATCTTTCTC
CCTATGTCCCAGCCTACCCCACTTTACCGAGGCCAACAGCCGCTCAGAAACCAGATTC
AGGAGCTAACATGCCCGAGGTCTCACGAGGATCAGAGACTCCAGAGGCCAGGGAAGGAGA
TCAAGGTAGTCAAGCGGGGGTCTGCTCAGATCTGGTTGTGCTCGAGCTATGCAAATGCCT
CTCATGGAGATGTGAGGACCTATCTATTATGATGACCAGGGCCACATCCGGAGGGGGCAA
CAGACTTTCATCTATCAGCCCTTTTCAACCACTGATCTACTAACTGGAAACACTCTGAA

Sequence 327

NGGGCCTTGNGAGCGGCCCGCCCGGGCAGGTACGCGGGGGTTTAAAAAATATTTAAAAA
ATGGAGGAATTATGAACTTAAAAGCAAATTAAGAAGCTTTTAGGTGCTACTGCACTTG
TGTTGCCAGTAGCATTTTTTGTCTTCTGCCAAACAAGATTTGNNNAAGTAAATGACCATA
AATTAGTGATTGCTCACACTTTAATAGTAGAGAAGGAAGGTTTTTAGCATTAGATCAAA
TTGTTAAGCTTTGAAATGAAAGTAAAAAGTTAAAAACAAAGAAGAAGGATTTTATCCAA
TAACACTAAATCGACAATTTGCGCAAACCTTATGCAGAA

Sequence 328

CAGGTACTTTAGCTCCAAAATCAGTTTGATGAGATACAGTTGCCCTATATGAGAATGCA
CAGGATTCCTCATTGGTGAGTTCAACCATACATTTGGGTAACTCCTGAAGACATCTGCA
AATTGTGAGTTAGTTGGTGGGGTCCATTAACATTTGCATATGTTATTCTTTCTACTGAAG

TABLE 1
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TGTGTGAGGCCACAACGTGCCATTATGCATATCANAAACAGAAATTTGTTGAGGATAAT
TTTGGATATTCAGCAGNGGCTGNGAACTGGATTTGAATTACCGGGATACATGCATGCTT
CTTGTT

Sequence 329

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAACTTTAATTAATGAGC
TAACGTCATATTTTTAAGTTTTTCAATTCOGTTTAAAAATCCTAATCAAGTAAAAAGA
TTACTTTATGAACAACAGCACCTTGAGATTGCGATTAAGTTAATAATCGCTTTCATTGTTT
CGCCAGTAGCTAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTTCAACATATTAG
TTTGGATTTCTAGAGTTGATTTACCATATTCTAAATCATACTCAAACTAATAACGCTCTC
CTGGTAATTTTTAGGTTTTCTTACCATAATAAAAAAGGGTTTTTTAAAAAGCTTGCAG
TTAGGGTGGTCCCAACAA

Sequence 330

CCGCGGTGGCGGCCCGCCCGGGCAGGTACACCTCTGATTCTCACTAGTTGAATGCAAGAAC
TTGAAAGGTTCAAGTAAGTGTTTTGAAAAATTTGACTTTCAAACTTTTGCCACTTGCT
ATCTGAACTCAGGAATCAAAAAATACCGACAGGCACTGTTACTTTCAAAATCTTTCTA
TAAGTTGAGAATGGGACAGATTTGCAGAGCAAGGGAACTTGAACAGTTACTTCTAGTGG
TAGGAAATGAGGTGGCTAGGATATTACCCAGCTGGTGGGTGACTTGGGCAGTGTGTTCTT
GCTTTCAGTGGTTAGCCTTTAGCAAATCTGCTTTAGAGTGAGAGTAGAGGGCAGGCTGTT
GTATTACAGTGCTCTTGTTTTGTAAATTTAATTCACCTCACTGNTATTTGTCTCCTT
GGGTAAAGNGNTATTTAATTTTTCT

Sequence 331

ATTATTGCNGAAAGAAGATTCACTCTCACCTGNTGAATAACGTGTTTCATAGGTAAAGGCT
ACAAAATACTAATTTGTTATTATTTTTAATAATAATTTTTGTTTTGCTGANAAAGTGGAT
TTACCACTTTTTATTTTTAATCCAAGGAGGAAAAATTTTCCAACCAAATCCTAAAA
ATTTTTACGTTCTAAACCAGTTCAAGAACATTGAGTAAACAGAAATATTCCATTTGTCA
AAGTTTTCTTATCGGCTCAGATAATGAAAAATNNGGGGATA

Sequence 332

CCGCGGTGGCGGCCCGCCCGGCCAAGGTACGCGGGGGCAGAAGAGGAAGATTTCTGAAGAG
TGCACTGCCTGAACCGAGCCCTGCCGAACAGCTGAGAATTGCACTGCAACCATGAGGTA
AATATTTCCCTTCGTATTCGGTAGTGCTGTTGAGTCATCTTGCCAATGCAATCCTGA
GAAGCTATGTTCCCAAAGAGGGCCAGCTCCATTTAGTGTTGTTTATAGCCTTACTATGC
CTCTACCTCTGGGGGTTGTAAATCTGTTNTACCCAATGGGNGGGTTTGTNNCCCTTCTG
AANCAAATTTTTCTGCTTNNACACTTGGGCAAACCNNTTCTAAATTTCACTCCTCCANA
ACTTTGCNCCNCCNTTGGGGGGAGGTTTGGGGTTTTCACTCCNGAANAAAAAGAGGGGC
CCCCACCNNAGGGNNTNNTTTNTTTTAAATTNNGGGCCNNGGGGNTTNNANTTAAAAAA
NNGGGNTTTTNNGGGGACNNTTTTTNTTTNACCCCCCCCCCTTTTTT

Sequence 333

GGCGATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACAACGTTGACCTTCCTTG
CCCAAGAATGAATGATTAATAAGTTGAAAAGCTGTGTTTGTAGATCGTTCAGGCCTTCGT
CTGCAACTATCAGGAAATATGGGTAACCTCTTCCAAGAACTTCCCCACTCTTTTGATA
AGCATCTCGAAAATGTTGTTGCAACATCAATGGTGGTATTTTCTGAAGATGAAGAATTAA
AGCAGTTCTCAAAGAAAGAAGTTCAGGGAAGTTGAAATACGCATACTCGGCATCCTTGAA
GAAAATATGGTGAATTGTCCTCCTTTGCTAATAAGATCCACAAGATAGCCGTTCAACCA
GATAGAAAAAATGGGAGGTNCCTGCCCCAGGCTTTAAANTGANTNNCNCNCNAGCATCCC
CTTGGGGATNNGGTAANNNCCNCCCCCNANCAAAAAAATTTTTCCCNCCNACC
NAATTNTGAAAAACCNNGNGGGGGTTTAAAAATTTGNGNTCNNAATTTNAAAAA
AN

Sequence 334

CCGGGCAGGTACTAGGAGATATTGATTCTAGTCAATTAGGCATTGTAGACTGTCATGACC
ACTTAATAAAAAATTATGGACCTGAAGCTCACGAGCATCCAGATTTTATTATGATGTCAA
AAGATGCTGCAATTAAGAAATGAATGAATATGTAGCAAAAGGAGGAAAAACTGTTGTTA

TABLE 1
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CAATGGACCCTCCTAACGTTGGGCGTGATGTTTATCAAATGTTAGATATTGCAAAGAAAT
TAGAAGGAAAAAGCTAACATTATTATGGCAACTGGTTTTATAAAGCTGCATTTTATGACA
AAGGTGCTTCTTGACTTGCTTTGGCTCCAACAGATAAAATTGNAAAAATGGTTGTAGCTG
AAATCGAAGAAGGAATGGATGAATATAACTACAGCGGACCAGTTGTAAAAAGATCTAAAT
CCAAAGCCGGAATTATTAAGC

Sequence 335

CTCCCCGCGGTGGCGGCCGAGGTACCGCGGGGAAATGCAAAAAATCAANNACAGTNNANT
CNAATACATCACAGATGTTNAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATATTTT
ACCACTTTTAGCAAATGGGAGANGTGCTAAATTACACAATTAATCAAATGGCTGAGTTAG
CTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGTTTCTTGTTTGGGACACCTA
CTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAAACCTAAAAAATTACCAGGAG
ACGTTNTTAGTTTTGAGTATGATTTAGAATATGGTAAATCAACTCTAGAAATCCAACTA
ATATGTTGAAAAAAGGC

Sequence 336

CTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAAATGCAA
AAAAATCAAATCAATTTAATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGG
ATTGTATTTAAAGATATTTCACTCTTTAGCAAATGGAGAAGTGCTAAATTACACAATT
AATCAAATGGCTGAGTTAGCTAAAGATGCAGATGTTATTATAGGTCCAGACGCAAGAGGT
TTCTTGTTTGGGACACCTACTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAA
CCTAAAAAATTACCAGGAGACCGTTATTTAGGTTTTNGGGTNNAGATTTAAATTGNGG
AAANCCCNNTTNTAGAAATCCAACTAATTNTGTTGNNAAGGGCCAAAAAGTNCCAA
TTATTGGTGATGTTTTAGCTACTGGCGGAACAATGAAAGCGATTATTAATT

Sequence 337

CCGCGGTGGCGGCCGAGGTACCAATAATAGCAACCCTGTGATTTGTCCAAGTGCCCGGGA
GTGGAGGCCATCCTGACAACAGCTCTATGATTTTCTATGCCAATGACACAGGAGCCCAAC
AGTTTGAAAAGTGGTGGGATAAGTCCAGGACAGTCCCCTTTTATCTTGAGGGCTCCTCC
TCCCCTGCTCAATTTCAAGTCTCCTTCATTTTTTCAAATTTAATATCCTAGGCACAG
TGTCTGTCTTTATTTGATTTTCCTTGTCACCTTTAAGGCTGTTGCTTGGGATTTTATT
TGGAATTTATTGGTTTATACCAACAGAATTTTTGTACCTGCCCG

Sequence 338

CCGGGCAGGTACCTGGAAGACTTCTCCACCTCGGGGGCCTGGCTGCCTCACAGGTATGAA
GACAACCACATAACTGCTACTCTTACGCACTCACGTTTCACTAAGTGCCTTCTGATGGCA
GAAGGTAGACAGCAACTGGACAAGGGTGAATTTACGGAGAAGTACCT

Sequence 339

ATAAACTGCGGGATCTCAATGGCTTCTATGATCGTATTGAGGCAGTAGTTCCACACTCT
GCCCGGTGCCAGCATGAAAAGAGAACAGGGAGAGTCAGCCTTTCACAGTCTTGTCAAATC
CCAATTACTCTGGTTGCAGATCACTGAAGCCTGCCTTGTTTCTCTACAAAGCTCTGCC
CGAGAGTCCAGCCCCGCGTACCTGCCCG

Sequence 340

GCGAATTGGAGCTCCCCGCGNGGCGGCCGAGGTACAAGATAGTCATNTCAGTAAAAGGT
CTATTATCTAACTTGCCAACTTGTTANNGAGAGCCCTAAGGAACTAAAATGCCATAA
TGCCNTGCACAGCTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAG
TTCTCAGCAGGCCTGGCTGAAGGCCCCAGGAGGAAGGAAATATAAGAACCAACAATAAA
AATAGCAATAGCAATAAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCAC
CTNTCCCGGATCAGGCTTCCATTGCTCACGATGCTCACGCTGGGCAG

Sequence 341

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTCTAGGACAA
TCAGGAAGTAATCTTAAAAAATAATTGAAGATGTTAAAAATACGTTAAAAATAAAAAA
CTTGTTTTAAACATAGATGCAGTAGAAATTGAAAAACCAGATTTAGATGCAAAATTATTA
GCTGAATCAATTGCAATTAATTAAGAAAACCGTGGATCATACCGTATGGCACAAAAATTT
GCAATTCGTTTAGCACAAAAAGCCGGAGCTAAAGGTATTAAACTAAAGTTAGCGGTGCT

TABLE 1
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TTAAATGGTGTTGATATGGCTAGATCAGAAGGATATTCTGAAGGTGAAATGAAATTACAC
ACACTTAGACAAGATGTTAGTTATGCAACAGCAACAGCAAGAACAACCTTATGGAGCACTT
GGAGTTAAAGTTTGAGTTTCATTAGGCGAAAGTATTTGCAAAGCAAAATCAAGCATATAA
TGAAGAAGAACCAACNCACAAAAAAGGGCCAAAAAGAGCAGCAAGAGTTAAAAAAGAA

Sequence 342

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCCAGGTGTTTACAC
GCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCC
TGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTG
GAGGGGCAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTG
ACTGCATTACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACC
TTGCAGTGACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGA

Sequence 343

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCATGAATGCCGTGCTCCAGGTGTTTAC
AGCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGC
CTGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCT
GGAGGGGCAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTNTTGCCAGATGACAAGGN
GACTGCATTACCACTCAGTATATGTGAGGGAGGGGATGTGCCTCTGGCCAC

Sequence 344

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAATAACTTTAATTAATGA
GCTAACGTCATATTTTTAAGTTTTTCAATTCGGTTAAAAATCCTAATTCAAGTAAAAA
GATTACTTTATGAACAACAGCACCTTGAGATTGATTAAGTTAATAATCGCTTTCATTGT
TCCGCCAGTAGCTAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTTCAACATAAT
TAAGTTTGGATTTCTAGAGNTTGATTTACCATATTTNTAAATCATTCTCAAAACTAATA
ACCGCCNTCCTGGGAAATTTTTTAGGGTTTTNTTACCCCTAAATAAAAAAGGGNTTNTT
TT

Sequence 345

CCGCGGTGGCGGCCGCCGGGCACGGTACCACTTGAATTATCTATTGAAAGAACTACTAC
ATCGAGTTTTTGTCTTTTGCCATTTCAATAGCTTCTCTTGTTCATTATCCCAATTTT
TTCATTATCTGAGCCGATAAGAAAACTTTGACAAATGGAATATTTCTGTTTACTCAATG
TTCTTGAAGTGGTTTAGAACGTGAAAAATTTTAGGATTTGGTTTGAAATAATTTTTCC
TCCTTGGATTAAAAATAAAAAAGTGGTAAATCCACTTTCTCAGCAAAACAAAAATTATT
ATTAAAAATAATAACAAATTAGTATTTTGTAGCCTTTACCTATGAACACTTATTCATCAG
GTGAGAGTGAATCTTCTTTCTGCAATAATTTCTAATTGCCCCGCGTCCTTGGCCGCTCTA
GAACTAGGTGGG

Sequence 346

CACTACTATAGGGNGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTAGGA
GATATTGATCCTAGTCAATTAGGCATTGTAGACTGTCATGACCACTTAATAAAAAATTAT
GGACCTGAAGCTCACGAGCATCCAGATTTTATTATGATGTCAAAGATGCTGCAATTTAA
GAAATGAATGAATATGTAGCAAAGGAGGAAAACTGTTGTTACAATGGACCCTCCTAAC
GTTGGGCGTGATGTTTATCAAATGTTAGATATTGCAAAGAAATTAGAAGGAAAAGCTAAC
ATTATTATGGCAACTGGTTTTATAAAGCTGCATTTTATGACAAAGGTGCTTCTTGACTT
GCTTTGGCTCCAACAGATAAAATTGTAAAAATGGTTGTAGCTGAAATCGAAGAAGGAATG

Sequence 347

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCGTAGAAGAAGAAGG
AATACCTAAAGAAACAGACATAGAAATCATCCAGAAATCCCGGAAACTCTAGAGCCACT
GTCCCTTCCAGATGTGCTGAGGATCTCGGCAGTTCTGGAGGACACCACAGGCCAGCTCTC
TATTCTGAACACATCATGCCCGTTCAGTACCT

Sequence 348

TNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGAGGTAATAACTTTAATTAATG
AGCTAACGTCATATTTTTAAGTTTTTCAATTCGGTTAAAAATCCTAATTCAAGTAAAA

TABLE 1
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AGATTACTTTATGAACAACAGCACCTTGAGATTCGATTAAGTTAATAATCGCTTTCATTG
TTCCGCCAGTAGCTAAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTCAACATAT
TAGTTTGGATTTCTAGAGTTGATTTACCATATTCTAAATCATACTCAAACTAATAACGT
CTCCTGGTAATTTTTAGGTTTTCTTACCATAATAAAAGGTTTTTTAAAAAGCTGCAG
TAGGTGTCCCAAACAAGAAACCTCTTGGCTCTGGACCTATAATAACATCTGCATCTTTAG
CTAACTCAGCCCATTTGATTAATTGTGTAATTTAGCACTTCTCCATTTGCTAAAAGGTGG

Sequence 349

TCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTAAAACAGGT
GCTCCTGTAAAAATAGAAGATCTTGAGCTACTTCTAGAGATTTAAATTCTAAACGATCA
ATAGCAGCGTATCCTGTTCCGGCTTTAATAATTCCGGCTTTGGATTTAGATCTTTTTACA
ACTGGTCCGCTGTAGTTATATTCATCCATTCCTTCTTCGATTTAGCTACAACCATTTTT
ACAATTTTATCTGTTGGAGCCAAAGCAAGTCAAGAAGCACCTTTGTCATAAAATGCAGCT
TTATGAAAACCGATTGCCATAATAATGTTAGCTTTTCTTCTAATTTCTTTGCAATATCT
AACATTTGATAAACATCACGCCAACGTTAGGGAGGGTCCATTGTAACAACAGTTTTTCC
TCCTTTTGCTACATATTCATTCATTTCTTTAATTGCAGCATCTTTTGACATCATAATAAA
ATCTGG

Sequence 350

TAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATTCTTCACTATCA
CTGTCCTGTAAATTTAGTAGCCTTGGCTGGAAACACTGTAGTCGACATGATCTGATATTG
CTTAATATTTAGAAAGAGACAGTCTATTTTACAATGTTTACTGGAAGCATTGGTCCGA
GAGAAATTAGAAGAAAAGTCTATAGTTTGGGAAGAGCTTGAAAACTATTCAGCATTTC
GGGTCTATCTGTTTCAGGACTGGGTCTGTTCTGTGGATATTCGGTCCATTATGACCCTT
CCACCTCTGCCAATTGCGCTCCTTGCAAATCCTATACATCTTCTTGGGACTGTAAGTGT
GTAAGGC

Sequence 351

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGCTTGGTGACTGTA
ATTAACAACAATGTATTTTGAAGTCACTGAGTAAATTTTAAAGTGGTTTTTCCAAAAAAG
CACATAAGGTAAATGACCGTTAATTAGCTATATTGAGCCATTCCACAATGTATAGATATT
TCAAAACATGTTACACATGATAAATCCAGTTTTTCTACGTCATTTTTTAAATTATATTT
AATTTTTTTATTTTGAAGTTTTTTCACAGATCTTTTTTTTAGTATTATTACCTTCTGAT
ATATGTGTCATTATTGAAGAACCATACTTTTAAAGGTATTATTTTGTAAATTAAGGTATG
TCAACAGTAAAAATAACCAGTGGCCCAGGCCATNGGGGCTCATGCCTGTAAATNCCAGC
ACTTTTTTTCGGAGGCCCG

Sequence 352

CCGCGGTGGCGGCCGAGGTACCTGTGAAGACAGCTACACCTGGTTTCTCCTCATGCCT
TGATCCCCAGAACTGCTACCTTACACGGCTGGAGCACTCCAAGCTGTGAATGTCATCT
TCAAACAACCTCAGCCAGAGTGTCAATTTCTGTGAGAGAACAAAGATTTGGGGCACTTTC
AAAATTAATGAAAGTTTACAAATGACCTTTTGAATTCATCTTCTGCTATATACTCCAAA
TATGCAAATGGAATTGAAATCAACTTAAAAAAGCATATGAAAGAATTCAAGGTTTTGAG
GTCGGTTCAAGTCAACCAATTTGAAATGGAAGNCATCGTTGCTGGGTATTGAAAGGTTT
GT

Sequence 353

CCTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTGTTTTATATTCT
TCAAATCCTATTGATGAAAACTTAAAGATGAATTAGAAAAATCTTATGTAATTAGACAA
AAACCAAAAAACAAAACTTATTTTAGAAAGACTTGGATAATGATTGATTATAAAAAAA
TGATTGACCATACTTTATTTAAACCAGAAGCTACATCTAAAGATATTTTAAACTTATTT
CACAAAGCTAAAGAACATGGATTTAGAGGAGTTTGCATTAACCTCTTCTGAGTTAAATTAG
CAAAAGAAAACTTGCAAATACAGATTTAGATATCGTTTCAGTAGTTGGCTTTCCATTAG
GTGCATCAAACACACAAACCAAGTTTTTGAAGCAAAATTAGCAGTTGAACATGGAGCTA
CTGAAATAGATATGGTTATAAATGTGGGTAAATTCAAA

TABLE 1
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Sequence 354

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTGCATGAAACCACACA
TACGGGCAAAAGCAGGAAGAGACTTTGCAGACATAAAAACCAGGTAAGTTTTGAGAGTCA
GGTGATTGCAAGATTTTTTTTTCTTTCATTGACACTTAGCTAATTTTGAGCCATATTTT
AAATGTGTGTCTTTTCAGTTACTTGAAACCTCTTCTCCACCTCCCATCCTTTCCAAACC
TCCTCCAAGCCAATTTTCCAGTTGGTTTAAAAGAAATCATTAGGGTGACCCCCACTCCCA
CTTCTGGAACCTCAGGCAGAGCTCCTGGGGTTCCTCC

Sequence 355

NNTTTTTTTTTTTTTTTTTTTTGCGTGGAATCCTTCACCTCTTGCTAAAGGAACAGTAA
TGTCATATCCTGTTAATCTTGCAGGAGGCGCTAATAAGAATTCAAATGCTTTCTCATTTT
TCTTGTAATAATTTCAAGTGAACGAAATGATTTAACAGCTTCGTGAACAACTAAAAGTC
TTCCAGTTTTTTAACAGAGTTAATAATTGTATCTGTATCTAAAGGAGAAATTGTTCTTA
AATCAATTAATTCTACAGAGTATTCTCCATTTAATTGTTTTAAAGCAGCTAGTGCTTCGT
GAACTTGTGCTCCATATGTTACTAATGTTAAATCAGAACCTTCTACTAATACATTTGCTT
TACCAATTTCAACTTCATAAATTCCTGCTGGAGCTTCTTGTTGAATGAACGATAAATTT
TCTTAGGTTCTAAGAAAATAACTGGATCTGGGTCGTTAATAGCTGCGATTAATAATCCTT
TTGTATCATAAGGAGTTGAAGGCATAACAACCTT

Sequence 356

AGGGCGAATTGGAGCTCCCCGCGGTGGGCGGCCGAGGTCTAAACTTTAATTAATGAGCTA
ACGTCATATTTTTTAAGTTTTTCAATTCGTTTTAAAAATCCTAATTCAGTAAAAAGATT
ACTTTATGAACAACAGCACCTTGAGATTGATTAAGTTAATAATCGCTTTCATTGTTCCG
CAGAGCTAAAACATCATCAATAATTGCTACTTTTTGGCCTTTTTTCAACATATTAGTTTG
GATTTCTAGAGTTGATTTACCATATTCTAAATCATACTCAAACTAATAACGTCTCCTGG
TAATTTTTTAGGTTTTCTTACCATAATAAAAGGTTTTTTTTAAAAAGCTGCAGTAGGTGT
CCCAAACAAGAAACCTCTTGCGTCTGGACCTATAATAACATCTGCATCTTTAGCTAACTC
AGCCATTTGATTAATTGTGTAATTTAGCACTTCTCCATTTGCTAAAAGTGGTGAAATATC
TTTAAATACAATCCCTTCAATTGGGAAATCTTTAACATCTCTGATGTATTCTATTAAATT
GATTTGATTTTTTGCATTTCCCCGCGTACCTGCCCGGGCGGC

Sequence 357

GAATGGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGATAGTCATCTCAGTAAAAGGTCT
ATTATCTAACTTGCCAAACTTGTTTACTGAGAGCCCTAAGGAACTAAAAGTCCATAATG
CCGTGCACAGCTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTTCTCCCTTCCAGTT
CCTCAGCAGGCCTGGCTGAAGGCCAGGAGGGAAG

Sequence 358

AGGTACANGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTGCCAAACTTGTTTACT
GAGAGCCCTAAGGAACTAAAAGTCCATAATGCCGTGCACAGCTTGAAAAGCAATTAAGA
GTAAGCAAGATTAGTTTTTCTCCCTTCCAGTTCTCAGCAGGCCTGGCTGAAGGCCAG
GAGGGGAAGGGAAATATAACGGAACCCAACAATTAANAAATAGGCAAATAGCCAATTA
GTAAGGAATGGNCATCCCATGGGAGGCANCAACCATTAAATTTCTTGGGAACCCACTNTNT
CCCNNGGATTGAGGGCTTCCATTTGCTTCACNGATGGCTTCACGTCTGGNGCAGCCCGCC
AACTCTTACTTTGCCAGGAAACCTCACCTCAACTTTGCCAGGGTATTTCTNCCCCGGG
TCTTGGAANGAAAATGGGCTTCNTCCACCTGAAAAAGGGTTNGAATCCTTTCTTCCCAT
TACCCAGGCTTTCCNTTAAAGCCAAAAAGGCCAAATTCCTCCTTTTTTGGCTTTTCT

Sequence 359

CTAATTGATCCTGNTCACATTCAAGTAAATGGCATTGCATATTTATATGTTGCTNACAGC
TTATTGATTTAGGTAACCTATTGTGTCTTCTTCACTATCTGACCTGAAAAGCACTCTCTT
CTCTATGCACTCTTATATTCTGCCTTTCTGCCTGGAGTTTGAAATACATGTCTCTTTAGT
TTCTTTTGCACATGCTACATTGGGCTTTAGACCGGAGATAATACAGTGACTTTACCTCAC
AATCATATTCTGTCAACACAAATCTATGAATTTAGTTTATTTAAAATCAGAACAATTTT
CTACAAAATTTTTCTGGAAAATAGACTCCTAACAGACCTACCAGAATCATGCTTAAAGTG
CTCCCTTGACACTTATTCTATACTGAAGGATAAATTTTAAA

TABLE 1
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Sequence 360

CCGCGGTGGCGGCCGAGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTG
CCAAACTTGTCTTACTGAGAGCCCTAAGGAACTAAACTGCCATAATGTCGTGCACAGCTT
GAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAGTTCCTCAGCAGGCCT
GGCTGAAGGCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAATAGCAAT
AAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACC

Sequence 361

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTGTTTTATATT
CTTCAAATCCTATTGATGAAAACTTAAAGATGAATTAGAAAAATCTTATGTAATTAGAC
AAAAACCAAAAAACAAAACTTATTTAGAAAGACTTGGATAATGATTGATTATAAAAA
AATGATTGACCATACTTTATTAACCAGAGCTACATCTAAAGATATTTTAAACTTAT
TTCACAAGCTAAAGAACATGGATTTAGAGGAGTTTGCATTAACCTCTTCTTGAGTTAAATT
AGCAAAAGAAAACTTGCAATACAGATTTAGATATCGTTTCAGTAGTTGGCTTTCCATT
AGGTGCATCAACACACAAACCAAGGTTTTGAAGCAAAATTAGCAGTTGAACNTGGAGC
TACTGAAATAGATNATGGGTATAAATGGTGGGTAAATTTCAA

Sequence 362

CCGCGGTGGCGGCCGCCCGGGCATGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCT
TGGTAGGCCATTACCATACCACTAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCT
GTGAAGCTCCTTTCTATTACTCATCATGCGATAAATACTATATCCGGTATTAGCTATTG
TTCCAATAGTTATCCAGTCTTAAAGGTAGGTTAGGTACCT

Sequence 363

CACTACTATAGGGNTNATTGGAGCTCNCCGCGGTGGCGGCCGTGCTGTTGCTTGGCCGCG
CGCCAGGCTGGCCAGAGGTGCTGTTCCACTGGGGCGTGGCCGTGATGGTGTGCGCCGATC
GACGTTCTGTTTTAATGAAAGGATGGACATGCAACTGACACTCGCACTCTTGGCAAT
CATGCCAATGCCCGCTCCAAAGCGGGTATTTTTTGCCTGCGCTAAACGTGGCCATGGC
GGAATTCGGTATCAACACGTCGGCGCGCCAGGCCGCGTGGCTGGCCACCATCGGTGTCGA
GTCCGGTAGCCTGCAGCGGGTAGAGGAAACTTGAACACCGCGCGGATCGCCTNCTCGT
TATTTTCGGAAATACTTCACGCCGGCGTTGGCCGCAGCTTATTGCCGGCAAGCCGGAAA
TGATCGNCAACCGTGTTACGCCAACCCGCATGGGGGAAACG

Sequence 364

AGGTACTAACTTTAATTAATGAGCTAACGTCAATTTTTTAAGTTTTCAATTCGGTTT
AAAAATCCTAATTCAAGTAAAAAGATTACTTTATGAACAACAGCACCTTGAGATTGATT
AAGTTAATAATCGTTTCATTGTTCCGCCAGTAGCTAAAACATCATCAATAATTGCTACTTT
TTGGCCTTTTTCAACATATTAGTTTGGATTTCTAGAGTTGATTTACCATATTCTAAATC
ATACTCAAACTAATAACGTCTCCTGGTAATTTTTTAGTTTTCTTACCATAATAAAGG
TTTTTTAAAAAGCTGCAGTAGGTGTCCCAACAAGAAACCTCTTGCGTCTGGACCTAT
AATAACATCTGCATCTTAGCTAACTCAGCCATTTGGATTAATTGTGTAAATTTAAGCAC
TTCTCCATTTGCTAAAAGTGGTGAAATATCTTTAAATACAATCCCCTTCAATTGGGGAAA
TCTTTAAACATCTCNGGATGGTATTCTATTAATAATTGAATTGAATTTTTTTGGC

Sequence 365

CCGCGGTGGCGGCCCGAGGTACCAAAATAAAGGGTATTTGCTACCTTTAATACTTGCCAG
TTCAGGTTGGAGGCACAGGCAGCAGCAAGAATGGAAAGAAATGTTCTTACAACATTTTCA
CAGGAAATGTCCCAGTTAATTTGAATGAAATGCAAAAGCTGAATATTCAGTTTATTCA
ATGATTTTGTGAATCTGAATTTTTTTGATTGATGGGGATTCACTTATCACATGTA
TCTGTGAGATATCATTTAAGCCTGGGCAGAACCTCCATTTCTTCTATCTGGTTGAACGCT
ATCTTGTGGATCTTATTAGCAAAGGAGGACAATTACCATAGTTTTCTTCAAGGATGCCG
AGTATGCNTATTCAACTTCCCTGGACTTCTTTCTTGAGAACTGCTTTAATTTCTCATCT
NCAGAAAGAATACCCCATTTGATGTTTGAACAACATTTTCGAGATGCTTATCAAAAAGAG
TGGGGAAAGTTTCTTTGGAAGANGAGTTACCCCATATTTNCTGATTGTTGGCAGACGAAA
NGCCTTGAACGATCTACAAAACNCAGCTTTTTAACTTTTTAAATCNTTCAATTCCTTG
GGGCAAAGGGAANGNTNAACNTTTGGTACCTTGCCCGGG

TABLE 1
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Sequence 366

CCGCGGTGGCGGCCCGCCCGGGCAGGTACGCGGGGAAATGCAAAAAAATCAAATCAATTT
AATAGAATACATCAGAGATGTTAAAGATTTCCCAATTGAAGGGATTGTATTTAAAGATAT
TTCACCACTTTTAGCAAATGGAGAAGTGCTAAATTCACAATAATCAAATGGCTGAGTTAG
CTAAAGATGCAGATGTTATTATAGGTCCAGACCCAAGAGGTTTCTTGTTTGGGACACCTA
CTGCAGCTTTTTTAAAAAACCTTTTATTATGGTAAGAAAACCTAA

Sequence 367

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGTAGGCCATTACCCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCC

Sequence 368

ACCGCGGTGGCGGCCGAGGTACGGCCACACTGGGACTGAGATACGGCCCAGACTCCTACG
GGAGGCAGCAGTAAGGAATTTTCCACAATGAGCGAAAGCTTGATGGAGCGACACAGNGTG
CAGGATGAAGTTNTTCGGAATGTAAACTGCTGTTATAAGGGAAAAAANAAAAAAAAA
AAAAAAAGGTNCCTGCCCC

Sequence 369

GGCGGCCGAGGNACAATATAGNCATCGCNTTAAACNGCCNANTNTTAANCNCGCCAAACT
TGTTACTGAGAGCCCTAAGGAACTAAAACCGCCATAATGCCGGGCACAGCTTGAAAAGC
AATTAGAGGAAGCAAGANNAGNNNTTCTCCTTCCAGNNCCTCAGCAGGCCTGGCTGAA
GGCCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAAATAGCAATAGCAATAAGAAGA
ATGCCATCCCANGGAGCACACCAAAATTCNGGAACCAACCNTCCCGGANCAGGCNTCCAT
TGNTCACGAAGCTCACGCNNGGCAGNCCGCAACTTTACTTTGNAGNAACCTCCCCACTTG
GCCAAGGGAATTCNCCCCCGGGCCTGGAAGAAAAGGGNTCTCCACCCGGAAGGGGCGN
ACCTTTTCCCAAAACCAGCCTTTCTTAAAGCNAAAAGCAAACCCNCTCTTTTGGGTTTC
NCAAAGGGGGCNGNACAAAAGGGAAGGGTTTTGGGGCNGGGGGGGGAAACAAAANCCCC
NCATTNGGAAGNTTGCCCCCGGCCGAGGGGAAGGGGAAAAGGTTGGNCCCCGGTTGGGGG
GGG

Sequence 370

ATTGTTGCTCNCCGCGGTGGCGGCCCGCCCGGGCAGGTACANGGAACTGCCAAAGGCAACA
GAAATTCCTTTCTCCCTATGTCCAGCCTACCCCCACTTTACCGAGGCCAACAGCCGCCTC
AGAAACCAGATTGAGGAGCTAACATGCCCCAGGTCTCACGAGGATCAGAGACTCCAGAGG
CCAGGGAAGGAGANNAAGGTAGNCAAGCGGGGGTGGTCTCAAATCTGGTTGNGCTCGAGC
TATGCAAATGCCTCTCATGGAGATGCGAGGACCTATCTATTATGATGACCAGGGCCACAT
CCGGAGGGGGCAACAGACTTTTATNTATCAAGCCCTT

Sequence 371

AGGTACTATTGACTAAAGTCAGTTGGGGGAGAGAGAGGCGGAAGTATATTACTTTTATGC
TTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAACATTAGATCAGTGGTTCTCA
GAGTATTGATATCTGGGAGTCCAGCAACAGTCTGAGGAGGTTTCATGAGTTCAGAATATT
TTGATAATAACACTAAGATGGTATTTACTCTTCTAACTGGGTAGATATTTGCACTGGT

Sequence 372

CCGGGCAGGTACCGGGTCTAGGGAAGATGCAGAACACTTCAGCCTGGCAGAAGGCTCTAA
AGATCGTCAACCTTTCTCTGTTTCAATTTTAAATTTTAAAAATATGCTAACTTAGCTGA
AAATCTCATGGAACCAGGCTCCTCATCAGACTTGAAAGTCAAACCGGTTTCTCAACAAC
TTCTCTTTATGGTTCTGTATGGCTCCACAGAAAACCAGAAAAACATTTGGGGCAAGAAGC
TATGACTCTGTGAGGCCACATGGGAGCAGGCAGTCAATTATTACACTAAGGAACACCCAG
TTAGCATGAAGTATCCCATCACCTCGGTATTAAGCCCTGCATGCATTAGCTATTACCT

Sequence 373

ACTTTTTTTTTTTTTTGTCTCAATAGAAGTATGGAATAATTCCAGGTAATTTAAAGCATA
TTTTTCAATTGGTGTAAGCTGCTCCATGAAGTCAGCTAGCTCCTCTAATTGGGATGGTTC
TTCATCACACGGCATGTTCTCAGAGTCTGATGACAGAGCATCAGTGTGTGGTCCCAGCAC

CCCCTCCTGTGCGGACTTCTGGGCATCCTCCTCCAGATACTCAATACTCTTGAGGGCCTG
AGGAAAGTCTCTATGAAAGGTCTTGCAATTTTGGGTGCAATGGTTTCCGTGACAGAAGGT
TCCTGAGAAAGCACCAAACTCCTCAGCTTTGACCGGAAGCCAGCATCACGGACGCGT
GGGTGGAAGCTTGACCT

CCGGGCAGGTACCGCTACTGAAATTATTAACATACACTACAGATCAATTATATAANTAT
GTTAATATCTTTAGAAATCAAGAGTTGCAGCATAAGAGAAAGGGATACAAAAACAAAACA
AGCAAAGAAGTTACATAAAAAACGTAACGTTGTATTGAAAAACCAGTATGAAC TTATGAT
TTAGTTTTCTTCTAAAAACGGACGCGTGGGTGGAAGCTTGACCT

NGCGNTGCGCTCACCTGCCCNCTTTCCANTCGAGGNAACCTGGTCGTGCNAGGGTGCNA
 NTAATGAATTCGNCCAAACNCCNCCGNGAGNAGGCGGTTTTGCGTNATTGGGGCCGCT
 ATTCNCTTTTTCTCGCTCACCTGACTTCGCTGCCGCTCGGTCGNTCGGCTTGCCGCCGA
 AGCCGGGTAAATCAAGCCTCCACTCAAAAAGGGCCGGGTAAATTACCGGGTTTNTCCAC
 CAANGAAATTTCAAGGGGGGATTAAACCNCNAAGGGAAAAANGAAACATTGTNNGANNC
 AAANAAAGGGCCCNNNCAAAAANNGGGCCANGNNGAACNCNCCGTAAAAAAAAG

[illegible]

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGTGATG
CTGGCTTCCCGGTCAAAGCTGAGGAGTTTGTGGTGCTTCTCAGGAACCTTCTGTCACGG
AAACCATTGCACCCAAAATTGCAAGACCTTTCATAGAGACTTTCCTCAGGCCCTCAAGAG
TATTGAGTATCTGGAGGAGGATGCCAGAAGTCCGCACAGGAGGGGGTGCTGGGACCACA
CACTGATGCTCTGTCATCAGACTCTGAGAAATGCGGTGTGATGAAGAACCATCCCAATT
AGAGGAGCTAGCTGACTTCATGGAGCAGCTTACACCAATTGAAAAATATGCTTTAAATTA
CCTGGAAATATTNCATACTTTNTATTTGNGGCNAAAAAAAAA

[illegible]

Sequence 379

TABLE 1
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GAATTGNAGCTCCCCGCGGTGGCGGCCNNCCGGNCAGGTGGAAAGGTGGGTGGGGAGAGG
GAGGCTTATTTGTTGCTGCAGTGTAAGTGAACCTAATTCATATGACTCAAATAA
GGTATATTTGGTTAGATCTAGGTGAGTTCTACTTTAGAGGAAATCCTGGTAACTGTTGTT
TGTTTGTAAGTTATAGCTGTAATTAATTTTCCCTGTATTCAAAGCCCCCAAACCTGCAT
TCAGATACTATGCATTTAGACTTCCTTAGGCAAAGTCAAGGCAACAAGCTGATGATTCTA
AGCTATTATTCAAGGAGTATCTACCATCATAAAGGTGGTTTAAGTCATATAGGATAATAT
CAATCAATAACAGGGAGATGGCAAAAATTTTGGGNAAANCCCAATATTANCTTGGG
TTTATGACCCCNAAATCTCACACTTTGGGNCNTATGGGAAAGGCTTTTTTAAAGACCC
GGGAGTTCAAGACCNGCCCTGGGCAACATTAACCAACCTCCTTTNNNCCAAANCTTTAA
AAAA

Sequence 380

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGCAGGTTACAAGTCGACCCAC
GCGTCCGCTTCAGAATATCCAATTCATGTGAAGTACAGGAAATTATAGTTTAGATATTTT
TAAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCTTTA
CCATATCATTAAATAAAGTCAAATTTTAAATTTGTGCCCAATTTGGCTGGGTGTGGTGGC
TCATTCCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 381

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCC
GCATTTATTAAGGCTTGATATGTTCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAA
TTGATCTTAACCACAAGGCTGAGAAGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGT
ATTAAATCCTCCAGAGAAGCCTGTAGTGTGGGATGCAAACATTTTAAAGTGTGACCATGA
GGTGTTTTTTGTGGACCATTTTAAAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGA
GTTAGGTAGAATGGGTTGGTTATCTGCACTCTAGCGGCCCTTCATAGCTATTGTATTCTG
GATTTCAATTCGGCACTTTATGTATTAGCTAAAAATTTTCATGACCAGATCTTTGAAGTA
TACAAAGTAAATCTTCAAGGTGGATAGTTTATCCAAGTGTAATGTGTTGCACTAGGTC
AGCTTGGAATTTTGAAGTACTTTTGGCATCATTGCATACATCTGGTTTGTGTACCTGCC
CGGGCCGCGCTCTAGAACNGTGGATCCCC

Sequence 382

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCA
GTTGGGGGAGAGAGAGGCGGAAGTATATTACTTTTATGCTTGGTTATACTAGAGAACAA
TNGAACTGACTAAAGAAACATTAGATCAGTGGTCTCAGAGTATTGATATCTGGGAGTC
CCAGCAACAGTCTGAGGAGGTTTCATGAGTTCAGAATATTTTGATAATAACACTAAGATGG
TATTTACTCTTCTAACTGGGTAGATATTTGCACTGGT

Sequence 383

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATATCTGCATATACACCAT
TAATTTTACATCGTTGAGGTAGCCAAAAGTCTCGTAAGTGGGCTTTTATTAATAATAT
AATGTTCTTAATAGAGGAAAAAGGAATTGAATACATTTTTAAAAACAAAATAACAAAACC
AATCCATTGTCCACAAAAAGAAATCAGTGGAGACAAAAGCAGTTTAATTTGCTGGATTCT
TTTTGTGGCTTATTTTTTGAAGTATTATTTACAAAATGTTAGACTAATTTTTAAGCAATAT
TAATAATAAGCAACATACAACTCCAAGAATAATATAATAAATAAATAAAGTGGGACGCGT
GGTTCGAAGCTTGCTCGNNGGGGGCGGNCGCTTCNAGGCCCNCCCGGGCAGGTACCCA
GTNATCACATAAATCTGCAATCATNTGGNTATTNAGCTTNACNTGNTTTTTTTATTGN
NGAANTTGTGTTGTATTGAG

Sequence 384

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGCAGGTTACAAGTCGACC
CACGCGTCCGCTTCAGAATATCCAATTCATGTGAAGTACAGGAAATTATAGTTTAGATAT
TTTTAAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCT
TTACCATATCATTAAATAAAGTCAAATTTTAAATTTGTGCCCAATTTGGCTGGGTGTGGT
GGCTCATTCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 385

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT

TABLE 1
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TTAAGAAATAGGGTCTCACTCTGTCCCCAGGCTGGAGCCATTATAGCTCACTACAGCTT
CTGACTCCTAGGCTCAAGGGATCCTGCCACCTCAGCCTCCCTGGTAGCTGGGACTATAGG
CAGGAGATCGCTTGAACCGGGAGGCGGAGGTTGCTGTAAGCTGAGATCGCGCCATTGCTT
TCCAGCCTGGGTGCCAGAGCAAACTCTGTCTCAAAAAAAAAAAAAAAAAATAATAATAAAA
TAAATAAAAAGGCAAGGAATATAGGGAAAAGTCAAAGAGATGGACTGTGAGAAGACTGG
GAAAGCCAGAAGAATGGNGGAAAATGTAGCATGGAGTAAGACAATAAAAAATATAAGAGGA
CTCATTTGCGACGCGTGGGTCGACTCACCTCGGCCGCTCTAGAACTAGTG

Sequence 386

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTTACAAGCTTCGACC
CACGCGTCCGGGAAATTTTAATTAATAAATAGGTGAACATTTTAAATGACCTAATACATAT
TTAGTCCACATTGAACTTTGGCATTGTTGTCATTGCCATTAATTTTATGATGGCATTAAA
ATTTGATGCCATTAAAATTTTATCAGTAGGTAGCATTGTTTTCTTAGCTACAATTGTTT
TTTTTAATTATAAGTATTAATAATTCATGAAGATGATTCTTTTGTAAAACAGTTTTGCA
TAAAAGTAAGTCTCATTTTAAAGCAACTACCACTTACTGGCCACCT

Sequence 387

AGGTCTTCGACCCACGCGTCCGATGGTTTTTGCAAAAATTGAAAATGCATCGATATTACA
GTTAATTTTTTTCAGTGTGTATGTGGTATTAGGCTTAGAACTATAACACAGGAAGTTTTTA
GAGTATGTCCACTCTGGTTTACTCCTTTGTAAGTATTAATACCTGATAATTTACATCCTA
CAGCCCTGCCTTTTTTTTTTTTTTCAAGTTTGTCCAGCAAGTCTTGGCCCTTTGCATT
TTCTTAATACATTTTAGTACCTGCCCC

Sequence 388

CCGCGGTGGCGGCCGAGGTACAAAGAACAAGGGAAGCTAAGGAAGAAAAGATAGTCAAT
AAAAGATGTCTCATCTGGGCTTAGTGGCTCATGCCTGTAATCCCAACACTTTGGGAGGCT
GAGGCTCGAGGACTGCTTGAGTCCAGGAATTTGGGCAAGTAGGAAATTACTGAACAGCTG
CTATCACAGACAAATGCCTAACATTGTGAAGTGCTACACAGGGGAAGGAGACCCACGCTA
AGAGGAGAGCATGCACCCAGACACAGAACTCAGAGGACACAGTTCAAAACACACATACAA
GAGGCTTAGGCACCTGTGGGCGTGTGTGTGCTCACAGCCAGCAAAATGAAAAAATCCC
AGCTCTGAAGGAGAGGCAAGTGCATGGCTTCCGTACCTGCCCC

Sequence 389

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGA
TGGTTTTTGCAAAAATTGAAAATGCATCGATATTACAGTTAATTTTTTCAGTGNGTATGT
GGTATTAGGCTTAGAACTATAACACAGGAAGTTTTAGAGTATGTCCACTCTGGTTTACT
CCTTTGTAAGTATTAATACCTGATAATTTACATCCTACAGCCCTGCCTTTTTTTTTTTTT
TCAAGTTTGTCCAGCANGTCTTGGCCCTTTGCATTTTCTTAATACATTTTAGTACCTGC
CCGGGCGGCCGCGCCGCGGCGAGGTACNACTACCTCTTAAAGTTGTCCTTATTGGAGA
TTCTGGTGTGGAAANAGNAATCTCCTGTCTCGATTACTANGAAATGAGTTTAATCTGG
AAAGCAAGAGCACCATTGGAGTAGAGTTTGCAACANNANGCATCCAGGTTGATGGAAAA

Sequence 390

TCCCCGNGGTGGCGGCCGAGGTACTATTGACTAAAGTCAAGTTGGGGGAGAGAGAGGCGG
AAGTATATTACTTTTNTGCTTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAAC
ATTNNATCATTGGTTCTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTNTGAGGAGG
TTCATGAGTTCAGAATATTTTGATAATAACACTAAGATGGTATTTACTCTTCTAACTGGG
TAGATATTTGCACTGGT

Sequence 391

AGGGCGAATTGGAGCTNNCCGCGGTGGCGGCCGAGGTCTTCNACCCACGCGTCCGATGGT
TTTTGCAAAAATTGAAAATGCATCGATATTACAGTTAATTTTTTCAGTGTGTATGTGGTA
TTAGGCTTAGAACTATAACACAGGAAGTTTTAGAGTATGTCCACTCTGGTTTACTCCTT
TGTAAGTATTAATACCTGATAATTTACATCCTACAGCCCTGCCTTTTTTTTTTTTTTTCA
AGTTTGTCCCANCAAGTCTTGGCCCTTTGCATTTTCTTAATACATTTTAGTACCTGCCCC

TABLE 1
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Sequence 392

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGCTT
CACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCTCACGAGT
TTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAAAGCTGAGAAGTCCAATGCCATT
CTGATTCTTGCAACTTACAAGTAGTCTTTTTTTGTCTAGACGCTTTCAGGACCTTCTTTT
TTCTCAGTCAGTGTATCCAAACCTTCACAGTGATATCTTTGGGTACCT

Sequence 393

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCATTTATTAAGGCTTGTATATGT
TCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATTGATCTTAACCACAAGGCTGAGA
AGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTAAATCCTCCAGAGAAGCCTGT
AGTGTGGGATGCAAACTATTTTAAGTGTGACCATGAGGTGTTTTTTGTGGACCATTTTA
AAGCCAATGATAG

Sequence 394

GGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTCTTCTACCCACGCGTCC
GCACATTTTGATGGTCAGTCAATAACTTAAGCAGTTACCAAATACTAGGTATCCAAGGA
GCGAGAGGTGGGCGAGCATAAGAAACACATTTCTCATGGCACAGCTCTGCCAAAGCCCTG
CAGAATCATTACACATAGGTCTTTGGTTAGTAGCCCCCTGGCACAGAATTCTGATCTTAA
ACAAATATTGTCTATAATCAAGTAGAGCAATGCAATTAAGCAAGGTTTGG
GGGCCATGCTGAAATCCCAGCCTTGCTATTTGCTGGCTGTGTGACCGTGGTTCCTTGGTC
TCATTATGCTTTGGTTCCCGTATCTATAAACGGACGTAATAATGTCTCCCTCTCATTAT
TGTGAAGTCGAAATGATGTCTGTAAAGTGCCCAACACAGTACTAAAGGGCTATT

Sequence 395

CCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCCACGCGTCCGTTTAAGTAACAT
TCAGATTTGTGTGTGTGGAGAGGTTGTAGGGAACAGAATTGTAGGAAGGTGCTCACACCT
GTTTTTGTGTGTGTGTATGTATATATGGTGGGTAGAAAATAAGGATTAATGAATGCA
GTAAGGTATTTGAGCACTCTTGTTTATCTTGTGTAGGTGCCAACCAATATTTTTATAGA
GATGTGGTTAAGCCTCTTGGCATGTTCAACTGTGTACCT

Sequence 396

CCGGGCAGGTCTCTTGTCTAGTATACTCAAGGCAGCCTAGTAAATTATTATTTATCTATA
CAATACTGGAAAACTTGTAGACAAAAACATGACTTGAATTGCTAAAAAAGGCTGACCT
NGANGGAGAATGAAACTTCCGGACGCNTGGGTGCAAGCTTGACCT

Sequence 397

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCGCGCGTCCGCATTT
ATTAAGGCTTGTATATGTTCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATTGATC
TTAACCACAAGGCTGAGAAGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTTAA
TCCTCCAGAGAAGCCTGTAGTGTGGGATGCAAACTATTTAAGTGTGACCATGAGGTGTT
TTTTTGTGGACCATTTTAAAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGTTAGG
TAGAATGGGTTGGTTATCTGCACTCTAGCGGCCCTTCATAGCTATTGTATTCTGGATTTC
AATTCGGCACTTTATGTATTAGCTAAAAATTTCTAGCAGATCTTTTGAAGTATACAAA
GTAAATCTTCAAGGTGATAGTTTATCCAAGTGTAATGTGTTGCACTAGGTGAGCTTGA
ATTTTGAGAT

Sequence 398

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCGCATGTTGGCTGGGCTGGT
CTCGAACTCCTGACCTCAAGTGATCTGTCTGGCCTCCCAAAGTGTTGGGATTACAGGCT
ACTAAAGCTTTTTATTTATTTCTGTGGATTTGAGTTATTGTGTAGTGTCAATTTATTTTC
ATATGAAGGATTCCTTTTGGTATTTTTGAAGAACTCTTTATCAGAATTAATTATCTCA
CTTTTGAATAATTTTAAACAATCTAGAAACGCTTTTTTTGTTTTTGAAGAATAGTTTTCT
GGATGTAAATTTTTGGTTAATTTTGTCTTTGAACACTGAATATTTAATCTTATGC
CTTCTGGCTTTCAGTACCTGCCCG

Sequence 399

CCGCGGTGGCGGCCGAGGTAGCTTGAGTCGACCCACGCGTCCGTTTCCAGATCCGTTTCCAGA

TABLE 1

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AACGTGAGTCTCTAGCTCAGGAGATTTCCACAACCTGTCCTTAGTAACCTGATCTTATTCT
CATGTTTAACTTTGGCAGTGGGAAGTTCTTCCTGGTATCCTGCCTAATTTACTGGAGTTG
GCATTAATGCCATTTCCCCCTAAGGCGTGGCTCTTGGACCAGTATCACCTGAGAATTTGA
TAGACATAGACCCAGAGTTACTGAGGCAGGTGCTCTGTTTTGGGGACCAGCAATCGGTGC
TTTAGCAAGTTCTTTGGGTGATAGGGTTTGGAACTACTGCTCTAAAGCATCATCTGTTT
TGACTTTGCCATGCACAATCTGAACTCACTCCCGTGAGGCCCTGCTCCTGATACTTTAAA
TCGTCTGTCTCTTTTTCTGCCTCTCTGTGGAG

Sequence 400

CCGGGCAGGTACAGGCACCTATAGAATTTAAAGGGGAGATTTCTTTATTTGTATTCAAT
GTATTAATAAGATTTTTAAAACATATTTGGAGAAATTGCTAATTAGTGTATAATCCTGA
TGCCAATTCTAAAAACCTTTTTTTTTTTTGTAGAGACAGGGTCTTATTCTGTCACCCGG
GCTGGAGTGCTCTGGTATGATCCTAGTTCACCTGCAACCTCAAATACCTGGTCTCAAGCAA
TCCTCCACCTCAGCCTCCCAGTAGCTGTCTCTATAAGCATGCACCACCACACCTGGCT
AACCTTCTTATTATTTTGGTAGAGACAGTCTCACTATGTTGCCAGGCTGGTCTTGAAC
TCCTAACCTCAAGCAAACATCCCTCCTCGTGCTCCCAAATGCTNGGATTACCAGCATT
AGCCTTACAAGCATAAGCTACCATGGACTGGCTTCNAAAAAATATTTGGTTTAAAAATC

Sequence 401

CCGCGGTGGCGGCCGCCGGGCAGGTGGAAAGGTGGGTGGGGAGAGGGAGGCTTATTTGT
TGCTGCAGTGTAACCTAAGTGAAACCTAATNNATATGACTCAAACCTAAGGTATATTTGGTT
AGATCTAGGTGAGTTCTACTTTAGAGGAAATCCTGGNAACCTGTTGTTTGTGTAAGTTA
TAGCTGTAATTAATTTCCCTGTATTCAAAGCCCCCAAACCTGCATTGAGATACTATGC
ATTTAGACTTCCTTAGGCAAAGTCAAGGCAACAAGCTGATGATTCTAAGCTATTATTCAA
GGAGTATCTACCATCATAAAGGTGGTTTAGTCATATAGATAATATCAATCAATAATACAG
GAGATGGCAAAAATTTTTGTGAAGAGCCAGATAGTANCTGAGTATGATGACCCCTAATC
TCAGCACTTTGGGAGGCTGATGGGAGAGGGTCATTTAAGACCAGGAGTTCAAAGACCAGC
CTGGGCAACATTAATAAACTCCATTTCTACCAAAAACCTTTAAAAAAATTAGC

Sequence 402

GCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGGGAGGACCTAGGCAACGGCC
TGAGACTCGAGACTCTATGTTGAAGATGCCTGGACTAACCTACTGAAGATACGTGGTTT
TACCAACAGGCCACCAATAGGAAGATATGAATGAAGCCATCTGAGACCAGCCATCTGG
CAGCCAAACTGCCAACTGACTGCAATGCATGAATGATCCCACTGACACCAGCTAGAGCA
CAAATGAGTTGCCTCCACTGAGCCCAGCCCAAATGTTATCCTATAAAATCATAAAACA
TAAACAGTTGTTTAAAGTCAAAAAAAAAAAAAAAAAAAGTGCGACCTGCCCG

Sequence 403

TACTATAGGGCGAATNGNAGCTNCCCGCGGTGGCGGNCGAGGTATTCAACAAGGGCCCTG
AGAGAGGGACAGGCAGCCCCTGTGAATCTTGCTGTTGAGCAGAGACAGGAGTCAGCACGT
GTGAGGGCAGCAGGGAAGTCTTCCTGGAGGAGTGAGACCTGGCGATGAGGAGGCACGGCA
GGGAGGTGGAACAGGCAGGAGAGACTCTTCAGGAATTGAGGAGATAGAATAGAGGACACT
AAAGCCTTAGAGAGGCCAGGGGTGGTGGCTTGGCAGGATCATCGCTTGAGGCTAGGAGTT
TAAAGCAGCCTGGGCAACATAGCGAGACCCCATCTCTAAACACAAAAAATAAAACCTG
CCCG

Sequence 404

CCGCGGTGGCGGCCGAGGTCAAAGCTTCGACCCACGCGTCCGTGATGCTGGCTTCCCGGT
CAAAGCTGAGGAGTTTGTGGTGCTTCTCAGGNACCTTCTGTCACGGAAACCATTGCACC
CAAAATTGCAAGACCTTTATAGAGACTTTCCTCAGGCCCTCAAGAGTATTGAGTATCTG
GAGGAGGATGCCAGAAGTCCGCACAGGAGGGGGTGTGGGACCACACACTGATGCTCTG
TCATCAGACTCTGAGAACATGCCGTGTGATGAAGAACCATCCCAATTAGAGGAGCTAGCT
GACTTCATGGAGCAGCTTACACCAATTGAAAAATATGCTTTAAATTACCTGGAATTATTC
CATACTTCTATTGAGCAAAAAAAAAAAAAAAAAAAGTGCGGCCGCTCTAGAACTAGTG

Sequence 405

TABLE 1

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TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCC
GGAAGTTTTCATTCTCCCTCTTTTTTTTTTTTTTTTTTTAGCAATTCAAGNCATGTTTT
TGTCTACAAGTTTTCCAGTATTGTATAGATAAATAATAATTTACTAGGCTGCCTTGAGT
ATACTAGACAAGAGACCTGCCCG

Sequence 406

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTAC
CTGAAAATGCTTATTCTAGCTTCACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATT
AGACTTAATTTTCCTCACGAGTTTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAA
AGCTGAGAAGTCCAATGCCATTCTGATTCTTGCAACTTACAAGTAGTCTTTTTTGTCTA
GACGCTTTCAGGACCTTCTTTTTCTCAGTCAGTGTATCCAAACCTTCACAGTGATATC
TTTTGGGTACCT

Sequence 407

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTCTCTTATATTGAAGTAAAATTTA
AAATTTAATACTTTTTATTTTTTAAAAGCATGTATGGCATCATTTCACTCTTATTAAAT
CTCTCTGCATCCATTCACCCATCCTTCTTTTTGTGTGTGTGTAGTGGTCTCTGTGAGA
GGGTTCAATTAATGTCAATCCTGATCATTTCTTCTCAAGAGATGTCAGTAGATTTGTTTT
TTTTGCTTTGGACTTTTATGAATTGATTGAATTTTTATGCCAATTATTTTTAAAGTATTA
CATAGAAGAACAAATGGACAGAAAAATTTAAATGCAATCAAATCTTGTTGATTTTGAAGT
ATAGGAAATAATCTTTTTTTTATTATACTTTAAGTTTTAGGGTACCTGCCCGGGCGGCCG
CTCTAGAACTAG

Sequence 408

CCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCAGTTGGGGGAGAGAGAGGCGGAAGT
ATATTACTTTTATGCTTGGTTATACTAGAGAACAAATAGAACTGACTAAAGAAACATTA
GATCAGTGGTTCTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTCTGAGGAGGTTCA
TGAGTTCAGAATATTTTGATAATAACACTAAGATGGTATTTACTCTTCTAACTGGGTAGA
TATTTGCACTGGT

Sequence 409

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTTACAAGTCGACCCAC
GCGTCCGCTTCAGAATATCCAATTCATGTGAACTACAGGAAATTATAGTTTAGATAFTTT
TAAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCTTTA
CCATATCATTAAATAAAGTCAAATTTTAAATTTGTGCCAATTTGGCTGGGTGTGGTGGC
TCATTCCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 410

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGACCAGTGCAAATATCTACCCAGT
TAGAAGAGTAAATACCATCTTAGTGTTATTATCAAAATATTCTGAACTCATGAACCTCCT
CAGACTGTTGCTGGGACTCCCAGATATCAATACTCTGAGAACCACTGATCTAATGTTTCT
TTAGTCAGTTTCTATTTGTTCTCTAGTATAACCAAGCATAAAAGTAATATACTTCCGCCT
CTCTCTCCCCCAACTGACTTTAGTCAATAGTACCT

Sequence 411

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACGCGTCCGA
TCACTTTTTTCATTGATACCTTATTAGATAAAACATTAGCCCCCTAGAGTGNNNTGTGAA
GGAAATATGCCTAATAAGAGATGATAGTTTTAGCAATAAATGAGCATTAGAACTATTATT
TATTAATGAAATGAACTGGTGGTCTGAAAGTGATGATAAACAGACAACTGTGGAAAATGA
ATTATTAATAATCCATGGAATTCCTTTTGAAGTTTATGAAGTACCTGCCCCG

Sequence 412

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGC
ATTTATTAAGGCTTGATATGTTCAAGATCCAGTGAAGACTGTCTTGGG

Sequence 413

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACAACCTTGATGCTT
TTGGCAGGAATTACAGAACAAACCAATGCCATTCAAGTTGTGGAGATTATACTNGCAGGTG
AACTCGTAAAGAGAAGATTCTGGAATGCCTATATCTGAAAGCTTGAGTCGACACCTN

TABLE 1
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Sequence 414

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGGAATGAGTGAGTGCAGAACTGGC
AACCAGAAGACAGGAACAAGGCCTGGGAATGGAGCGGAAAGGTAGCTGCTATATATAGTT
CCTTCAGCCAGTAACGATTAGAGCCAATAGCCATCTGGATGATGAATGGCTCCTAATTGC
CTTAAATTACGGCAGTTAGCTAAGGGTTTCTGTTGCTACATGGGTACCGTAGGCCGCTG
CACCTGCATAACTGTCCTCAGGCCTGCGTCCCCTGAGTCTCAGCACTTGGGCCTCCACC
TGCCCG

Sequence 415

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCCCAAAGTGCTGGAA
TCACAGGAATGAGCCACCACCCCAGCCAAATTGGGCACAAATTTAAATTTGACTTTTA
TTAATGATATGGTAAAGAGATCTAGCTTGGTCATGACACCCTTGTTTATACGGTGACAG
GCAAATCATTTAAAAATATCTAACTATAATTTCTGTAGTTCACATGAATTGGATATTC
TGAAGCGGCCCCNTGGGTGCACTTTGTAACTGCCCGGGCGGCCGNTCTAGAACTAGTGG
GATCCC

Sequence 416

TATGGCGAATTGGAGCTCCCCGCGGTGGCGGGNCGAGGTNAAGCTTCGACCCACGCGTCC
GATTATTCTCTCCATTTAGGCTATAAATCTTTCAGTGTAGGGTGTTTCTAATGTCNTATT
CTTCCAAAAAAAAAAAAAAAAAAGT

Sequence 417

CCGCGGTGGCGGCCGAGGTACTCTTGATGTCATAAGATTAGAAAATGTGGTTAATTGTCA
TCAACCCATTAAGTTCTTAAATGTCATTGAATGGAGTCCTTGTCATGTTACAGAGGAGCG
TAAAATTGTGGTTAAACATTTTTTTAAAGATTACATGGTAGAGCCACAGTTTGTTATGCA
GAAGGAAAATTTAGCAAATATTATTTTGCTTAATAGCCTTTAAAAAATCGTATAAATTTG
ATTTGTAGTTTTATCCCAGAGTCATTAGATTTTTCCAAAAAAAAAAAAAAAAAAGGT

Sequence 418

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGCCAAAGCCT
TAACTTAGATTGTTACTTATGTTTCTAAATCTGNNGAAGCACATTTCTTTTNTNTNTNT
TTTCTTTTACTGTTAATATCCTTATTCTCTATTTTACCAGTGGAGAATGNTTAGTATTAA
TTTCCATTTANCTCANGATTCAAGAAATGCAAAGTGCTATTTTTATCAAATTTCTGAAAG
CCTACTGTCTTCTGNNTTGGAAAGTCCACAACAGCTCTTTAATTTCTTAAGCCCCACTT
TCCTCATCAGCAAGTTGGTGTGGCAATGGATCATAATAGGTTGCTGGGAGGATGAAGTGA
GCGGACCGCGTGGGTCAAGCTTGACCTN

Sequence 419

CCGCGGTGGCGGCCGCACTTTTTTTGTATTACTTCAACTTTTAAAAATTCTAAAGAAAAC
CATCATCTCAGACCAGCATTTCGGGACGCGTGGGTCAAGCTTGACCT

Sequence 420

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGTCAAACATCT
CCCTCGTCCGGATCCTTCTAACGCAGGAGTCTCAGACGCAAATGCCGGCAAGGGCCAGGC
AGGTGATGTAAGATGCGTGGAGCAGATGCCAAGCCACAGGGAGTGGTGGAGACTGGGGTG
AACTGGAAGCACCT

Sequence 421

CCGCGGTGGCGGCCGCCCGGGCAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGT
CATCTCAAATTTCAAGCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCT
TGAAGATTTACTTTGTATACTTCAAAGATCTGGTCATGAAATTTTGTAGCTAATACATAA
AGTGCCGAATTGAAATCCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACC
AACCCATTCTACCTAACTCAGGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAATG
GTCCACAAAAAACACCTNATGGTCACACTTAAATAGTTTGCATCCACACTACAGGCT
TCTCTGGAGGGATTTAATACTTTGG

Sequence 422

GGTGGCGGCCGCCCGGGCAGGTGTCAAACATCTCCCTCGTCCGGATCCTTCTAACGCAGG
AGTCTCAGACGCAAATGCCGGCAAGGGCCAGGCAGGTGATGTAAGATGCGTGGAGCAGAT

TABLE 1

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GCCAAGCCACAGGGAGTGGTGGAGACTGGGGTGAAGTGGAAAGCACCT

Sequence 423

TNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATAATATAC
AGAGGTATAATCTGTAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGAAAAGGAGT
AGAATGCTTGTATGTGACTAAAATTATGTTGGTATCAGTTTAAAATATATTATTATAACT
TTAGAATGCTATACCCATTCCCACAGTAATCCCATAGTAACCAAAAAGAAAATATCTGT
AGGATACACACAAAAGAAAATCAGAAGTAGATGCAAACTTGTCACACTACAGGAAAAA
GCTATCAAAATAGAAAACAATAATGGAGAAAATAAGACACCAAAAGCTATAAGACTCACA
GAAAATAAATAAATAAATGGCAAAAAGAAGCGGACGCGTGGGTCGAAGACCT

Sequence 424

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAAGCTTCGAC
CCACGCGTCCGATTTGGCAGAAATTCAGGGTAATGTCAAGGTTCTTAAATCTGAGAGAGA
CAAGATCTTCTTCTTTATGAACAGGCACAGGAAGAAATTACCCGACTTCGACGAGAAAT
GATGAAAAGCTGTAAAGATCCTAAATCAACAACGGCACATGCTATTCTCCGGCGAGTGGA
GACTGAAAGAGATGTANCTTTACTGATTTACGAAGAATGACCACAGAACGAGATAGTCT
AAGGGAGAGGCTAAAGATTGCTCAAGAGACAGCATTTAATGAGAAGGCTCACCTGGAACA
AAGGATAGAGGAGCTGGANGNCCNTCCCGGGGGCCGGGGNCGCCCGCCCCNNGCAGGGT
CANATGATTGCAGAATTTATGTGATTCCTGGGGT

Sequence 425

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTACTGAGCCACTTA
CAATTATTTCTGAAAAATCTCAGAGAACTGAGGATAGATCAGAAAATTTAAAGAAAGCAA
ATACCAAATTTTCAAACCAGGATAGGAAGTGAATACCTTGTAATACACTTTGTTAAGTG
ATGATAATTCTGAGTAAAAATTTAGAAGATTTTGAGAAAAGCATTGAACTTCTAGGGGC
CAATAAAATACCATGCAGAAGAATGTTTAAAAAGTCATGCCAAATTTGAATCCATTTGAT
CCTCAACCTCATCAGATGTTATATGCCAACTACTTATTTTGGCTTAGATAATAATCATA
TAGAATGAACTTTCCACAAATAGACTGTGGTCAGTGGCTG

Sequence 426

CCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGACCCACCGTCCGGCAATGATGAGCA
AAAACAAGTTTGGTCCCCCTGTTATAGNGCCTGGTAAAGGTTTTTGTGTTGTTTGCAG
GGGTGGGGGAACCAGGAAATCAGATCATCACAACAATATATACTTATCTGTAAGTATGGT
AACTGCTACAGCAAAGGGGCGTATCATACTATTAGCATACTAAGTTTCACTTAAAGAGGT
CGGA

Sequence 427

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGTCAAACATCTCCCTC
GTCCGGATCCTTCTAACGCAGGAGTCTCAGACGCAAATGCCGGCAAGGGCCAGGNAGGTG
ATGTAAGATGCGTGGAGCAGATGCCAAGCCACAGGGAGTGGTGGAGACTGGGGTGAAGT
GAAAGCACCT

Sequence 428

TANGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCGACCCAC
GCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGTTGGGAGCACAAAGA
TGAATAATAACAATAGGTTACAGAAAAAGATGAATTGATTGAGAGAAAAAGAACCCTCCA
GGAGCCCTCAGCGTAGTAGGGGTTGGTGTGGAGGGTGGAGGAATGGAAAAGGCCCTGA
AATGCAGGCAGAGAAATGATGAAACAATTCAGGGGCTGTGGTGAAGTTAAATGAATATCT
TTACAGCAGCCTCNAAGACTGATCAGGTTACTATACCCTCTCTTNTGTCCACNGTGCATT
TNAA

Sequence 429

CCGGGCAGGTCAAGCTTCGACCCACCGTCCGGCAATGATGAGCAAAAACAAGTTTGGTCC
CCCTGTTATAGAGNCTGGTAAAGGTTTTTGTGTTGTTTGCAGGGGTGGGGGAACCAGG
AAATCAGATCATCACAACAATATATACTTATCTGTAAGTATGGTAACTGCTACAGCAAAG
GGCGTATCATACTATTAGCATACTAAGTTTCACTTAAAGAGGTCCGA

Sequence 430

TABLE 1

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CCGGGCAGGTACACTCCAGCTCCTCTATCCCTTGTTCCAGGTGAGCCTTCTCATTAAATG
CTGTGTCTTGAGCNATCTTTAGCCTCTCCCTTAGACTATCTCGTTCTGTGGTCATTCTTC
GTAAATCAGTAAAGGCTACATCTCTTTAGTCTCCACTCGCCGAGAAATAGCATGTGCCG
TTGTTGATTTAGGACTCTTACAGCTTTTCATCATTTCTCGTCGAAGTCGGGTAATTTCTT
CCTGTGCCTGTTTATAAAGAAGGAAGATCTTGTCTCTCTCAGATTTAAGAACCTTGACAT
TACCCTGAATTTCTGCCAAATCGGACGCGTAGGTGCAAGCTTGACACCTCGGCCGCTCT
AGAACTAGTGGGATCCCCCGG

Sequence 431

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACGATTTAAATCTC
CTCCTCCTACAGCGGTGAGTATTGAAGCAGGTCTTTGAGGATGGGCNGGAATTAGAGTC
ACCAAAGGAGGAATACCCTCACAGTTTTCTGCAAGAGTCTTTGAAACAATGGATGGTGT
TTATGGGTCTGGGGAAGACCCCNCGCCCCAAATGTTGCTCCCCT

Sequence 432

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACACAAACACACACACAA
AGTTTAATATACTTTTTAAAAATTTTATTGTATTGTTTTCTTGAAATAGGGTCTTGCTA
TGTTGCCTAGGCTGGTCTTGAACCTCTGGGATTAAGCAATCCTCCCACTAAGCCTTCCA
AAATGCTGGCATTACAGGTGTGAGCTACCACAATCAGTCTCTTAGATTTTGTTTTTTAAG
AACAATCGAAGTTTACTGCAAATTTGTGAAGAACGAACAGACTGTTCCACATATCCCT
TTTTCTTTACACACCGGACGCGTGGGTGCAAGCTTGACCTGCCCC

Sequence 433

CCGCGGTGGCGGCCCGCCCGGGCAGGTCAAGCTTCGACCCACGCGTCCGGCTTGAGGTGGG
TTTAGGAAACATTTGGTATCTNTGGCAGGGACAGATGTTGACCTGGCCGGTCGGCAGCTT
TTACAAACCTAAGGACTTCAGGGTCCGGTTGCGCATGAGGACCGGGGAGGACAGAGCTGT
TTGCAATAGGTGTGGGCTTTTATAGCATTGTGAGCATTTCACGTTAGCGTAAGTGTGCT
GCTGTGCAGGTGGTCTCTGGGGCTTACAATCTTCCCAATGTTCTTCCCCACCCCTCCCA
CCATTCTGGTGAACAAGCCTCTTGGGATTCTTTGAAAAAAAAAAAAAAAAAACCT

Sequence 434

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACATAATATACAGAG
GTATAATCTGTAAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGAAAAGGAGNNGAA
TGCTTGTATGTGACTAAAATTATGTTGGTATCAGTTTAAATATATTATTATAACTTTAG
AATGCTATACCCATTCCCACAGTAATCCCATAGTAACCAAAAAGAAAATATCTGTAGGA
TACACACAAAAGAAAATCAGAAAGTAGATGCAAACTTGCTACTACAGGAAAAAAAAGCTA
TCAAAATAGAAAAACAATAATGGAGAAAATAAGACACCAAAAGCTATAAGACTCACAGAAA
ATAAATAATAAAATGGCAAAAAGAAGCGGACGCGTGGGTGCAAGACCT

Sequence 435

CAGGTACAGGCACCTATATGAATTTAAACGGGGAAGATTTCTTTATTTTGTATTCAATGT
ATNAATAAGATTNTTAAACATATTTTGGAGAAATNGCTAATTAGTGTATAATCCTGATG
CCAATTCTAAAAACCTTTTTTTTTTTTGNAGAGACAGGGTNTTATTCTGTACCCGGGC
TGGAGTGCTCTGGTATGATCCTAGTTCACTGCAACCTCAAATACCTGGTCTCAAGCAATC
CTCCACCTCAGCCTCCCAGTAGCTGTCTCTATAAGCATGCACCACCACACCTGGCTAA
CCTTCTTATTATTTTGGTAGAGACAGTCTCACTATGTTGCCAGGCT

Sequence 436

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTATTCAACAAGGGCCCTGAGAG
AGGGACAGGCAGCCCCTGTGAATCTTGCTGTTGAGCAGAGACAGGAGTCAGCACGTGTGA
GGGCAGCAGGGAAGTCTTCCTGGAGGAGTGAGACCTGGCGATGAGGAGGCACGGCAGGGA
GGTGGAACAGGCAGGAGAGACTCTTCAGGAATTGAGGAGATAGAATAGAGGACACTAAAG
CCTTAGAGAGGCCAGGGGTGGTGGCTTGGCAGGATCATCGCTTGAGGCTAGGAGTTTAA
AGCAGCCTGGGCAACATAGCGAGACCCCATCTCTAAACACAAAAAATAAAAAACCTGCCCG

Sequence 437

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCACGGTACCACGTAGCAAC

TABLE 1
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ATATGAGTATTTCTCTAGATAACTTTTTTTTTGACAAGGTCTCACTCTGTTGCCAGGCT
GGAGTGCAATGGTGCAATCTTGGCTCACTGCAGCCTTGACCTTCCCTAGCTCAGCTGAAC
CTCCCATCTCAGGACACCATTGCCTCCACTGCCCATCCTGCATCTGCCTGCCTACCCAA
AAGTGTTGAGAATACAAGCATGAGCCAGAGCCACGGAACCTGGCCTCTAGAGAGACTTTC
TATTTTAGTTTTTCTTCTCTTATTTGTGAAGCCTTGAAAACTACTGTGGTTTATTTA
GATTCTGGTTTGTGACTTTTTTAAATAAACTTTTTATTTTGAATAAATTTATGTTTGA
GAATAGTTGCAAACATAATAAAGTGAGTTTTCATAAACGCCTTACCAGTTTCCCCTGNTG
GTTAACATTTTACATCACCATGCTGTTGCATTGGTCAAACTA

Sequence 438

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCATTTATTAAGGCTTGATATGT
TCAAGATCCAGTGAAGACTGTCTTGGCGGTGTATAATTGATCTTAACCACAAGGCTGAGA
AGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTAATCCTCCAGAGAAGCCTGT
AGTGTGGGATGCAAACTATTTAAGTGTGACCATGAGGTGTTTTTGTGGACATTTTA
AAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGTTAGGTAGAATGGGTTGGTTATC
TGCACTCTAGCGGCCCTTCATAGCTATTGTATTCTGGATTTCAATTCGGCACTTTATGTA
TTAGCTAAAAATT

Sequence 439

TCGAGGCCGCCCCGGGCAGGTACACAAACCAGATGTATGCANTGATGCCAAAAGTCATCTC
AAAATNGCAAGCNGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGA
TTTACTTTGTATACTTCAAAAGATCTGGTCATGAAATTTTNAAGCTAATACATAAAGTGCC
GAATTGAAATCCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACCAACCCA
TTCTACCTAACTCANGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAATGGNCCAC
AAAAAACACCTTATGGTCACACTTAAAA

Sequence 440

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTAAACTTTAAAGTA
TAATAGTAATAATAAAAAAGAGGTGCTTTTCTCCTAAGTCAACATTTTAGAGGAAAAGA
GTCAATTCAAGCAATTATCACATATGTGTAAGTGAAGCACATATGTGTAAGTTTCAAGA
GTGATTAGATGGTCTGTTGTCTTTGAAGTGATAGTCAAAATATCAGGTGTGTTCTAGGGAG
GTTGTGTAAGACTTTTGCTTGTATTCTCCCGACGCGTGAGTCGACTCAAGACCTGCCCG

Sequence 441

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACG
CGTCCGATTATTCTCTCCATTTAGGCTATAAATCTTTCAGTGTAGGGTGTNTCTAATGTC
ATATTCTTCAAAAAAAAAAAAAAAAAAAGT

Sequence 442

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGAGGTACAAGTCGACCCACG
CGTCCGCTTCAGAATATCCAATTCATGTGAAGTACAGGAAATTATAGTTTAGATATTTT
AAATGATTTGCCTGTCACCGTATAACACAAGGGTGTGATGACCAAGCTAGATCTCTTTCA
TATCATTAATAAAAGTCAAATTTTAAATTTGTGCCCAATTTGGCTGGGTGTGGTGGCTCA
TTCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 443

CGCCCGGGCAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGTCATCTCAAAATTC
CAAGCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGATTTACTT
TGTATACTTCAAAAGATCTGGTCATGAAATTTTAGCTAATACATAAAGTGCCGAATTGA
AATCCAGAATACAATAGCTATGAAGGGCCGNTAGAGTGCAGATAACCAACCCATTCTACC
TAACTCAGGTTGAGATTGCTTTANAACCTATCATTGGCTTTAAATGGTCCACAAAAAAA
CACCTCATGGTCACACTTAAA

Sequence 444

ACNGNCAGGTACCAAGATTAAGGACAGAGTTCCTCCATTGGTCATTGATTTGNAAACCA
AAATGTATCTGTGACAGGTATTAATCCGGACGCGTGGTGAAGACGAAAGGACACGAGAA
ATANGGACCTANNCCGCTCTANAAGTAGGNATCCCNNNNCTGCAGGAATTCGATATCA

Sequence 445

Sequence 446

Sequence 447

Sequence 448

Sequence 449

Sequence 450

Sequence 451

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCG

TABLE 1
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TCCGATTATACCCTAAAAAAGTAGAAAGATGGAATAATTAGGAGTAAAATTAGTGAAATG
GAAAGATATGTTATAGAAAGGACCAAGAAACGCAAAGTTGGTATTTGAAAAGACTGAAA
AAATTCATGAACCTGTGAAAACAGTGGTCAAGAAGAAAAGAGAGGCATATTTTGATCTCT
GTTTTACATGTTACTCAATGTTCAATTGCTGCCTCCCTTGCCATAAAGTGCCTTTAGTGT
GTATGTTACTTTAGATTATCTTGGTGTCAAGCTTTACTCAGCAAAGAACCACCTTTGT
TGTCTACTTTAAACATAAGTTATCTTTAAAGAATGGGTATCTTTTATAGTTCCATATT
AATGGCGAAGAACTGCAGGTAACAGTGCCTTACCAGCTGGGTTTTGCTAACTTTTCTC
Sequence 452

CCGCGGTGGCGGCCCGCCCGGGCAGGTTTTATTTTTTTTCTCTTTAAAAAATAATTTG
GTTTTGAATATTAATTTACATATTTCTAAGTTAAATCAACATTCGTAGAGGAATTATCA
AAAAAACTAGTAAGTCTGAAAAAAAACCATATTTTATATTCTGAGGTCCCGGACGCGT
GGGTCTGAAGCTTGACCT

Sequence 453

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCAGGTACCCAACACAAACTA
TTCAATAAAGTAATCTGCTTTAAAAATAAAACACACTGAAAGGCCGAGGCAGGTGGATCA
CCTGACATCATTAGTTCAAGACCAGTGTGGCCAACTGGTGAAAATTAGTCTCGACTAAA
AATCAACATTAGCTGGGCGTGGTGGCAGGCGCCTCTAATTCAGCTACTCAGGAGGATGA
GGCAGGAGAATCACTTGAAGCAAGGAGGTGGAAGTTGCAGTGAGCTGAGATCGTGCCATT
GCACTGCAGCCTGGGCAACAGAGTGAGACTCCGTCTCAAAAACACCACCACCAACAAAT
AAACACAACAGAATTATTCTGCAATACAGATATTGGAGTAGCTGAGTTCCATCTCAAAT
TTGACTATGCAGGTTGACAGGTGATCTTGGCAAACACTTATCCTTTCTGAAGTTCAACT
TTTTACCAAATGGTATTGGGATACAACACTTGCTCTTGCCTATCTCACATGAATTATCC
ATTTTGGACAACCTTGTTAACTATA

Sequence 454

CCGCGGTGGCGGCCCGAGGTCCCAAAAGATATCACTGTGAAGTTTGGATACACTGACTG
AGGAAAAAAGAAGGTCCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAGTTGCAAGA
ATCAGAATGGCATTGGACTTCTCAGCTTTCTCATTAGAAGTTAAGATCTGAAGCAATCT
TTAACTCGTGAGGAAAATTAAGTCTAATAAATAATTTTCTTCTTAGCCAAACAATCAAA
TGTGAAGCTAGAATAAGCATTTTCAGGTAAAAAAAAAAAAAAAAAAGT

Sequence 455

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCTACAGCATCCTGATAA
CAGCCTCTGCCCTGGGAAACAGACTGTGACCATGCATTTCTAGTCCAGCATATCCTATCA
GAAGACCAAAATGGCTTCATCAAAAACAGAGTGACAACCTCTTCTCTTTGCCTCTTCTGTG
CTTGTTAAACAGGCAGCATTGGGGCAGGAGAGCCTGCAGGCCTTTCACGGCTGCTTGAGTT
CTCACCTGTTTGTCTGAGCTCTGATTCTCTGCCCTGTAAGCGTAAAGGAGATGTGCTGA
GTGGAAGACCTCTAAACAGGCAGGCCAGGAAGCCAGATTTCAAGTCCATCTCTGCCTCTA
ACTGGCAGCTTTGCCTTGGGTAAATCATCAAGTGGGCAATAGTTTCTCTCCTGTAAAAGG
AAAAGATTGGGTTTAAGATTGTTTCTGAAGTTCTCTCTAGATTTAACCTGGAAGGAGTTG
AAATTGCTAACC

Sequence 456

CCGCGGTGGCGGCCCGCCCGGCAGGTACAACATTTTACATTTCCAGGGACTGCAAAAATGT
TAGTTCCTTCCCCCATCATTTAGTTTGAAAATTCTTAGATAATTCTTTGCTGGTAAATTC
CAACAGAATAGTTAGCACACAGGTTCCACACACACAAGTTCTAGATAGGAATCTGAAGCA
CCACAATGAAAAGAACATTTAACATCTTTTAAAAATGTTTAATGTTATCAGAAAGATGTT
TGGTATATGTGTTCCATGCATGCTCCTGCTGGTTCTATTTGAAAAAGAAGTTTTTACAGT
TATCTGTTGTCAACATATTGTAAACGGACGCGTGGGTCTGAAGACCT

Sequence 457

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACAATAAATAGCA
TTCCACGGTGACCACAAGTCTTGGAATCAGTTCAGGTGTCGTGCTGGCCGTTGACACC
GCTGCCTTCTGACGGTAAATGTATTGTAGAATTCATGTTGTATCAGGCTTCAGTTTCCTC
ATTCTAAAATGAGAGGATTGGATAAGTTAGTAGTTTCTAATTTTACTTTTAATCAGTGG

TABLE 1

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CATCTCCCATTTATTTTTCATTTGAAATAAACTTTTGAATTTTATCTTCTACCTAAATA
ACATATTTTGTTTTATGTTTCAAGATGAAGCTCACACTGAGTTGGAAAAAGGAAAAAGC
AAAGGATCAAAGCTGGGGGAAAATACTGGACCATGTGCTTCACCTCATGGTGCCAAATAA
AGAGAAAATGGGGAGAAGATAGGGACAGATAAAGATCTATTTGCTCGGATTGNGCTCTCA
TCCTTGGCAACATGTTGACAATGCCCTGGAAATA

Sequence 458

CCGCGGTGGCGGCCCGAGAGCTCCAGGACGAAGGTATAAACACAGCAGAGGGCAGAGCCT
GATTTCAATCAGGGGCTACTCTAAGAAAGGCAGGAACTAGATAAAATACATTTAAAAGAA
ATTCCTCAGTGGCAGGGACAGTAGAGCAGCAGGGGGAGATCCCAGCACGGACAGGTAACA
GTGTGATGTGGCAGAAAGGCTTTGGTTGCAAGTGGAGAACAGATGTCTCTGGCTGCCTCT
GGCAGCTGCCTCCTTCTGGGCCTTGACTTTTCAAAGCCAGGCCAGGCCTCCCCACCCTG
GACCACCTGTAGCTGGTTTCAAGAGGCCAGGCTGGGCTTCATAGATGAAGACACAGCTG
ACTCAAGTCTCTGGCTCTGTGCGCTCTTGCCACCTTGCCGCTCCCATACGGTGTTTCT
CAGGTCAACCCCTCTTCTCCATTCTACTTCAATGACCTCAGGTCAGGCCCTTGCCACTT
CTCTTCTGGACAAAGATGACAGCCCTTCACTGGTATCCTCGTCTNCAACCTAATTTATNC
TTCACAGTGCTGGCAGAAGTGACATCTTTTAAACACACAACGACCCCN

Sequence 459

GCGGCCGAGGTCCGCACTTTTTTTTTTTTTTTTTTATTTTACTCCAGAATTTTCCTTTA
ATATTTAGGACTCCAATCTTTACTTACAAAATAGCTTTTATTTACGTGCACATGATCGTG
GTTTCAAATTTTCTAAGCACTATGCTAAATTTGTATCAAAACATAACAGATTCCCATC
TTACAAACATAGTTGCTAGTTGAATGAGTAAAGAGATTTCAAATTTCAATTCAAGGAGG
CATGTCTAAAAGACCAGACCATTCAATTTGATGAAATTGTAATGCCGATCATCCAACCTA
ACAGGAAGTGCACATTTGTTCTTTCTAGTTAGAAAAAATAA

Sequence 460

CCGCGGTGGCGGCCCGCCCGGGCAGGTCTTCGACCCACGCGTCCGTGATTGCCTATTGTT
TGTTGATTGACTGATTTATGCCTCTAAGAGGAAGTATCTTTTGATAATATTAAATAAGAT
GTCCTAATACAAAAGTATAGAGTTTCAAGAAATAATAAGAATCTCTGGCCAGGCGTGGTG
GCTCACGCCTTTAATCCCAGCACTTTGGAAGGCTGAGGTGGGCGGATCACGAGATCAGGA
GATTGAGACCATCCTGGCTAGCATGGTGAAACCCTGTCTCTACTAAAAATACAAAAAAA
TTAGCCCGGGTGTGATGGCGACCT

Sequence 461

CGCGGTGGCGGCCCGCCCGGGCAGGTACAGAAAGGACAAATACATCAGTAGAAAAGAAGA
CAATATAAGGGCAGATTGAAATATATACGTGAACGTCACAAAGACCAATTACTGCCATT
CAATTCATGAGGAAAAAATGATGTATTTAATAAATAGTGCTAGAAATGCTGCATTATCTG
TCTAGGATGAAAAAAAAAAAAAAAAAAGT

Sequence 462

CCGCGGTGGCGGCCCGAGGTGGAATGTCTGTTTTACAAAATTTTGTATTTTCTCCTAAT
AGTATGAGGTNGAAGAAATCTACATCTTCTCAAGTGAAGCTTATGATTAAGTCTGAGTT
TTCTTGCTATTCTCAAATCGGAATNTCCAGACCTGGCTAGAAAATAAAGTCTAAGCCCAT
TCATTAAGTCTTGAATTTATTTACTTTNGCCAAGAACAGCTATATAAAATTAGATTCCT
CCTGGTATAAAATTGGGTGTTTTCTTAGATATTNGCTATCAAAAGTCATTTTCTTGAA
ATCGGACGCGTGGGTNGAAGCTTGACACCTGCCCGGGCGGGCGGCCGCACTTTTTTTTT
TTTTTTTTT

Sequence 463

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTAAGTAAAG
CATACAACTGAGGGTTCACGGATTTCTAAGAAATGCATTTCCCTTGTCTATGTTTCATCAG
CCTTTAATACTTTGGCTACAAGGCATATCAGAGAAAGGGAGGTAAATTGGGTAAATGACA
AAAGAACATATGTAAGTCTGGAATAGGAAAAATGTTCCAGAAATGGGATCAATGTGCCA
GCAATAAGCATAGTTTCATTTCAATTTGAAATTCAGTTAAAGAGCCCAATAAACAGTTCCA
AACCGGACGCGTGGGTGGAAGACCT

Sequence 464

TABLE 1

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ACTATNGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTCGACTCAAGCTTTAG
ATATAGGGCATTCCAGAATCTTCTTTACGAGTTCACCTGCTAGTATAATCTCCACAAC
TTGAATGGCATTGGTTGTTCTGTAATTCCTGCCAAAAGCATCACAAGTTGTACCTGCCCG

Sequence 465

CCGCGGTGGCGGCCGAGGTAATAGCTAATGCATGCAGGGCTTAATACCGAGGTGATGGGA
TACTTCATGCTAACTGGGTGTTCTTAGTGTAATAATTGACTGCCTGCTCCCATGTGGCC
TCACAGAGTCATAGCTTCTTGCCCCAAATGTTTTCTGGTTTTCTGTGGAGCCATACAGA
ACCATAAAGAGAAGTTGTTGAGAAACCGTTTGACTTTCAAGTCTGATGAGGAGCCTGGT
TTCCATGAGATTTTCAGCTAAGTTAGCATATTTTAAAAATTTCAAAATGAACAGAGGAA
AGGTTGACGATCTTTAGAGCCTTCTGCCAGGCTGAAGTGTTCTGCATCTTCCCTAGACCC
GGTACCTGCCCG

Sequence 466

CCGCGGTGGCGGCCCGCCCGGNCAGGTTACAAGCTTCGACCCACGCGTCCGGGAAATTTTA
ATTAATAATAGGTGAACATTTTAAATGACCTAATACATATTTAGTCCACATTGAACTTT
GGCATTTTGTCAATTGCCATTAATAATTTGATGGCATTAAATTTGATGCCATTAATAATTT
TGAT

Sequence 467

CCGCGGTGGCGGCCCGCCCGGGCAGGTCAAGCTTCGACCCACGCGTCCGTGATAACTTCTC
CTAAGTGCCAGGCATTGTATTACATGCTGGGAGCACAAAGATGAATAATAACAATAGGTT
CACAGAAAAGATGAATTGATTGAGAGAAAAAGAACCCTCCAGGAGCCCTCAGCGTAGTAG
GGGGTTGGTGTGGAGGGTTGGAGGAATGAAAAGGCCCTGAAATGCAGGCAGAGAAATG
ATGAAACAATTCAGGGGCTGTGGTGAGGTTAATGAATATCTTTACAGCAGCCTCGAAGA
CTGATCAGGTTACTATACCCTCTCTTCTGTCCACGTGCATTC

Sequence 468

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCACAACATTCCCCCTT
CCCCAAACAGTAATATGGACACTGATTTAACAAGACTTATAAAAAATAAGGCACATTTA
TTTTGATATGGTAATTTTAAATAGAAACCCCTTCTCAGAACACCTGTATTCAAATGAGC
TGTGTAATAAGACACCTTGTGGTACCTAAATAGGTTTATGGTACCTATGGAATTGCTTC
TATTTTAGTGAAGATGGAATAAATTGCACCATCCACATTGTCAAGTAATGAAAATATG
CGGACGCGTGGGTCGAAGCTTGACCTGCCCG

Sequence 469

GACCTCTTTAAGTGAACTTAGTATGCTAATAGTATGATACGCCCTTTTGTGTAGCAGT
TACCATAGTTACAGATAAGTATATATTGTTGTGATGATCTGATTTCCCTGGTTCCCCCACC
CCTGCAAAAACAACAACAAAACCTTTACCAGGCTCTATAACAGGGGGACCAAACTTGTTT
TTGCTCATCATTGCCGGACGGTGGGTGCGAAGCTTGACCTGCCCG

Sequence 470

GCTCCCCGCGGTGGCGGCCCGCCCGGGCANGGTTACAAGCTTCGACCCACGCGTCCGGGAA
ATTTTAATTAATAATAGGTGAACATTTTAAATGACCTAATACATATTTAGTCCACATTGA
AACTTTGGCATTTTGTCAATTGCCATTAATAATTTGATGGCATTAAATTTGATGCCATTA
AAATTTTGAT

Sequence 471

GCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTCAAGCTTCGACCCACGCGT
CCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGGGAGCACAAAGATGAA
TAATAACAATAGGTTACAGAAAAGATGAATTGATTGAGAGAAAAAGAACCCTCCAGGAG
CCCTCAGCGTAGTAGGGGGTTGGTGTGGAGGGTNGGAGGAATGGANAAAGGCCCTGAAA
TGCAGGCAGAGAAATGATGAAACAATTGAGGGGCTGTGGTGAGGTTAAATGAATATCTT

Sequence 472

ATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACAAGCTTCGACCCACGCGTCCG
GAGCGTTGCTTGGATTTCTAATTACTTCTAAGNGTAGTTTTATTTAATTTAGTCCTTTA
GAAAAAANAATAAANAATAATGTGCGGGGCCCGGCTGCCCGGGCAGGTNCCACNCGTT

TABLE 1

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CGAAAAAAGAAAGAAAAAACTTTCTCTTTGCCANTTCTTCTTCTTTNTT

Sequence 473

CTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTT
TCCTTTTGAGACACAGTCTCACTCTTGCCAGGTTGGTCTAAACTCCTGGGCTCAAGCA
ATCCTCCCGCTTTCAGCCTCCCAAAGTGCTGGGGTTACAGCCGTGTGCCACTGTGTCTGG
CCCTTTTCTTTTCATAGGAGAAGGGTTGTTGACTCCCAGGAAACGTACCTGGAACCAA
GAATGTGAAGTCAAGGACCCCCGCCTGTTGGCAGCTGCATTTACTTGACTCCTGTTCACT
GTTTCTTAGCCTTGTCCTTTCTCCTGCCAGTTCTAGGGGACACTGCTTCTCCTGGTTG
ACCTCATCAATGCCCAACC

Sequence 474

CCGCGGTGGCGGCCGCCCGGGCAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGT
CATCTCAAAATTCCAAGCTGACCTAGTGCAACACATTTCACTTGGATAAACTATCACCT
TGAAGATTTACTTTGTATACTTCAAAAGATCTGGTCATGAAATTTTAGCTAATACATAA
AGTGCCGAATTGAAATCCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACC
AACCATTCTACCTAACTCAGGTTGAGATTGCTTTAGAACCCTATCATTGGCTTTAAATG
GTCCACAAAAAACACCTCATGGTCACACTTAAATAGTTTGCATCCCACTACAGGCT
TCTCTGGAGGATTTAATACTTTGGAAGTAGCATCATAAG

Sequence 475

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGACCNGTGCAAATATCTACCCA
GTTAGAAGAGTAAATACCATCTTAGTGTTATTATCAAAATATTCTGAACTCATGAACCTC
CTCAGACTGTTGCTGGGACTCCCAGATATCAATACTCTGAGAACCACTGATCTAATGTTT
CTTTAGTCAGTTTCTATTTGTTCTCTAGTATAACCAAGCATAAAAGTAATATACTTCCGC
CTCTCTCTCCCCAACTGACTTTAGTCAATAGTACCT

Sequence 476

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAACGCTTCGACCCACGCGTCC
GGTTTGGGTGGAATTATAATTTTTAGATAAGATTTAAGAGGATTGCTAGATNGGAATGC
GAATGATGATAAGGCTTTTAGAGTTAGATAAGAGAGAGGGGCGCTCTAGAAGTAGTGGNTC

Sequence 477

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCACAACATTCCCCCTTCCC
CAAACAGTAATATGGACACTGATTTAACAAGACTTATAAAAAATAAGGCACATTTATTT
TGATATGGTAATTTTAAATAGAAACCCCTTCTCAGAACACCTGTATTCAAATGAGCTGT
GTAAAAAGACACCTTGTTGCTACCTAAAATAGGTTTATGGTACCTATGGAATTGCTTCTAT
TTTAGTGAAGATGGAATAAATTGCACCCATCCACATTGTCAAGTAATGAAAATATGCGG
ACGCGTGGGTGCGAAGCTTGACCTGCCCCG

Sequence 478

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTATACTAGAA
GATGCTCCAAGGTTTCAGAAAGGAATTAATTACTTTCAATTTGCACAATTTAGAACAAAT
ATCTGGCTTTTCCCTAAGCTTAATGATTTTCCATTTACACAACTAAAATATAATAGCAT
TATTTTATAATCAAGTTTAACTGATGGTCTATGATAGTAGAGCGATTTAGTATTTTGACA
AAAATCTTATGAGACATGAAGTCATTCAATTTGCCGGACGCGTGGGTGACTCAAGCTAG
ACCTN

Sequence 479

TTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCTTT
CTTTTGTGTTAAGGGCCCATGACCTGCAGTTTCCCTAACATTCATTTTATACAGGGCA
GAGGTATGTGTGCGAGCTCAGATACCTTAAATTCATATGCCTTTAAATACAATCCAGGCAG
ATTTCTAAATGAGGGATGCTTCCCCACAAATGGAGAGTGAAAGTGGGCCAGCCTAAAAGG
ACCTCCATAGCACTGTGCATGGCCAGCTGTTTGTGGCTGTACCTGCCCCG

Sequence 480

ACTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTC
CGCTTCTTTTGTGTTAAGGGCCCATGACCTGCAGTTTCCCTAACATTCATTTTATAC

TABLE 1
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AGGGCAGAGGTATGTGTGCGAGCTCAGATACCTTAAATTCATATGCCTTTAATACAATCC
AGGCAGATTTCTAAATGAGGGATGCTTCCCCACAAATGGAGAGTGAAAGTGGGCCAGCCT
AAAAGGACCTCCATAGCACTGTGCATGGCCAGCTGTTTGTGGCTGTACC

Sequence 481

GACCTCTTTAAGTGAACTTAGTATGCTAATAGTATGATACGCCCTTTTGCTGTAGCAGT
TACCATAGTTACAGATAAGTATATATTGTTGTGATGATCTGATTTCTGTTCCCCCACC
CTGCAAAACAACAACAAAACCTTTACCAGGCTCTATAACAGGGGGACCAAACCTTGTTT
TTGCTCATCATTGCCGGACGGTGGGTGGAAGCTTGACCTGCCCG

Sequence 482

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATTGACTAAAGT
CAGTTGGGGGAGAGAGAGGGCGGAAGTATATTACTTTTATGCTTGGTTATACTAGAGAACA
AATAGAACTGACTAAAGAAACATTAGATCAGTGGTTCTCAGAGTATTGATATCTGGGAG
TCCCAGCAACAGTCTGAGGAGGTTGATGAGTTCAGAATATTTTGATAATAACACTAAGAT
GGTATTTACTCTTCTAACTGGGTAGATATTTGCACTGGT

Sequence 483

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCAGGTCAAGCTTCGA
CCCACGCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGGGAGCAC
AAAGATGAATAATAACAATAGGTTACAGAAAAGATGAATTGATTGAGAGAAAAAGAACC
CTCCAGGAGCCCTCAGCGTAGTAGGGGGTTGGTGTGGAGGGTGGAGGAATGGAAAAGGC
CCTGAAATGCANGCAGAGAAATGATGAAACAATTCAGGGGCTGTGGTGAGGTAAATGAA
TATCTTTACAGCAGCCTCGAAGACTGATCAGGTTACTATACCCTCTNTTCTGTCCACGTG
CATTTNAAAAACNTTGGCCGNTCTAGAACTAGTG

Sequence 484

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGATGGTTTTTGCAAAAATTGAAAA
TGCATCGATATTACAGTTAATTTTTTCAGTGTGTATGTGGTATTAGGCTTAGAACTATAA
CACAGGAAGTTTTTAGAGTATGTCCACTCTGGTTTACTCCTTTGTAAGTATTAATACCTG
ATAATTTACATCCTACAGCCCTGCCTTTTTTTTTTTTCAAGTTTGTCCCAGCAAGTCTT
GGCCCTTGTGATTTTCTTAATACATTTTAGTACCTGCCCG

Sequence 485

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGCTT
CACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCCTCACGAGT
TTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAAAGCTGAGAAGTCCAATGCCATT
CTGATTCTTGCAACTTACAAGTAGTCTTTTTTGTCTAGACGCTTTCAGGACCTTCTTTT
TTCTCAGTCAGTGTATCCAAACCTTCACAGTGATATCTTTGGGTACCT

Sequence 486

ACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTGGAGGCCCAAG
TGCTGAGACTCAGGGGACGCAGGCCTGAGGACAGTTATGCAGGGTGCAGCGCCTACGGT
AACCCATGTAGCAACAGAAACCCTTAGCTAACTGCCGTAATTTAAGGCAATTAGGAGCCA
TTCATCATCCAGATGGCTATTGGCTCTAATCGTTACTGGCTGAAGGAACATATATAGCA
GCTACCTTTCCGCTCCATTCCCAGGCCTTGTTCTGTCTTCTGGTTGCCAGTTCTGCACT
CACTCATTCCGGACGCGTGGGTGGAAGACCT

Sequence 487

CTATNGGGCGAATTNTNCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACGCGTCCGA
TCATTTTTTTCATTNATACCTTATTAGATAAAACATTAGCCCCCTAGAGTGTGTTGTGAA
GGAAATATGCCTAATAAGAGATGATAGTTTTAGCAATAAATGAGCATTAGAACTATTATT
TATTAATGAAATGAACTGGTGGTCTGAAAGTGATGATAAACAGACAACTGTGGAAAATGA
ATTATTAATAATCCATGGAATTCCTTTTGAAGTTTATGAAGT

Sequence 488

CCGGGCAGGTACAAATCAAGTCATTAACATTTTCAATGTCAAAAATACAGCACGCTGTTA
AGAGTTCTGTGAGTGCTCATTATCCCACTAGATCCCAAAAGGGCAAACCTCAAAAGATGA
AACAAAGGCAACGCCATCAATAACCACCATATTCCACAGGCTTCTCCCCTAGGACGTAC

TABLE 1

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CTN

Sequence 489

CCGCGGTGGCGGCCGCCGGGCAGGTGGAAAGGTGGGTGGGGAGAGGGAGGCTTATTTGT
TGCTGCAGTGTAACTAAGTGAACCTAATTCATATGACTCAAACCTAAGGTATATTTGGTT
AGATCTAGGTGAGTTCTACTTTAGAGGAAATCCTGGTAACTGTTGTTTGTGTAAGTTA
TAGCTGTAATTAATTTCCCTGTATTCAAAGCCCCCAAACCCTGCATTCAGATACTATGC
ATTTAGACTTCCTTAGGCAAAGTCAAGGCAACAAGCTGATGATTCTAAAGCTATTNTTCA
AGGGAGNTNTTTACCCATCATAAAGGNGGTTTTAGTCATTATAGATAATATTCAATCAA
TTANTACCGGGGATGGCAAAA

Sequence 490

CCGCGGTGGCGGCCGAGGTGTAATTTGGAGAATATTTAAAGCAAAGAGCAAACAACAAA
AACTAAGTTAACACTTACCCAGTGCAGTAAGGGAATTGTAAGATACAGCCTGCTTAAGGA
GGTCTGCAGACAGATGCACCTAAGATTTAGCTGTTTTAGGTCACTTTTCTCAAAATATT
TATTATCTGGCAATGGGGATGGGAGTGGGGAACACCTNTCTGTGAGGCAAATGGTATCTC
AACAAATACCGACTTTTCAAGGAAGAAAGCTCTCCACTTCTCTATAAACTTATATACTA
CCTTAAACAGTATGCAGTATTCGCGGACGCGTGGGTGCAAGCTTGACCTGCCCCGGGCGGC
CCGCTCTAGAACTAGGTG

Sequence 491

CCGGGCAGGTACAGCCTCACATACACAGATGCAGGTGAAGTCACCAAAGCTGATCTCTCA
TTCGTTCTGGGGACAGTTAGCAGCGTAGTGGTCCCACTGCAGCAAAGTTTGAAATTCAT
TTTCTTCAGGAAAATACCCAGCCAGTCCCTCTCAGTGGAAACCTGGTTATGTCGTGGGG
CTCCCATTAGCTGCTGGATTCCAGCCTCATAAGGGTGGAGCTCTCCCGTGTGAGCTCGTA
GCACAGAAGGTGAAGAGCCTGCTGTGGGGCCAGTGCTTCCAGATTACGTGGCCCCTTTT
GGAAATCCAGGCCAGGGACATGCTGGACTGGGTGCCCATCCACTTNATCACCCAGTC
ATTCAACAGGGA

Sequence 492

CCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCAGNTGGGGGAGAGAGAGGCGGAAGT
ATATTACTTTTATGCTTGGTTATACTAGAGAACAATAGAACTGACTAAAGAAACATTA
NATCAGTGGNTCTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTCTGAGGAGGTTCA
TGAGTTCAGAATATTTTGATAATAACCTAANATGGTATTTACTCTTCTAACTGGGTAGA
TATTTGCACTGGT

Sequence 493

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGA
ACATCTTGATTTACAAGGGACAAAATGATGCAAATTATATGCTGTCCAACCTACTGGTGA
ACTGGATCAGAATGGTCCAAGGACTGTTAAACAGAGGAAGTATTACATTTTGAAAACCT
GCGGACGCGTGGGTGCAAGCTTGACACCT

Sequence 494

CCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGAACATCTTGATTTACAAGGGACAAAA
TGATGCAAATTATATGCTGTCCAACCTACTGGTGAACCTGGATCAGAATGGTCCAAGGACT
GTAAACAGAGGAAGTATTACATTTTGAAAACCTTGCGGACGCGTGGGTGCAAGCTTGTA
CACCT

Sequence 495

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCCTAAAA
CTTAAAGTATAATAAAAAAAGATTATTTCTTACTTCAAATCAACAAGATTTGATTG
CATTTAAATTTTCTGTCCATTTGTTCTTCTATGTAATACTTTAAAAATAATTGGCATAA
AAATTCAATCAATTCATAAAAGTCCAAAGCAAAAAAACAATCTACTGACATNTCTTGA
GGAAGAAATGATCAGGATTGACATTAATGAACCCTCTCACAGAGACCACTACACACACAC
ACAAAAAGAAGGATGGGTGAATGGATGCAGAGAGAATTTAATAAGACTGAAATGATGCCA
TACATGCTTTTAAAAAATAAAAAAGTATTAATTTTAAATTTTACTTCAATATAAGAGAAA
AAAAAAA

Sequence 496

TABLE 1
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CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCTTCGA
CCCACGCGTCCGTAGTAATAGGGAATTAAGTACCCCTTTTGGATGGGGGAGAGCATCAG
GCTGGGGTCAGGTAAGTGTAATGGCCTTCTGAGCATGCTCTTCTAGGCTGACTCCCAGC
CCTGACTTGAAACCATTAGCGCTAACTTGCTCTGTTTTGAGAAAACTTTCCAACTTTT
GCATGAGAACTAGAAAAAGGAATGTATGCCACGTAAGTGGATTACAGAAATGAGTTAAT
TGTCTCTGTGATAAAAAAATGAAATATTTCTTATTGAATTAATATTTTGTCTTGA
AGCATTTTCTAGTGATAGAATGTATTTGTCTTTTCTGCGGGGNACCTCGGCCGCTCT
AGAACTAGTG

Sequence 497

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCCCCAGGTC
AGCACTTTGAACACTTGAACATCTATGAAATCACATAGTAAAGTGATAGGAGATGGGGCT
AAGCTTTTAATGGCCTTTAGACATAGCATTAGACATAACCTAAGCTGAAAGGCTTTGGGA
AGTTGTTGTGTTAAATCCCCAACACACTCTCGTGTCTTTCTTAGGACTTGCCTNTTATTTA
AAAAAAAAAAAAAAAAAGTTGCGGCCCGCTCTAGAACTAGTTGGATCCCCCGGGCTTGCGA
GN

Sequence 498

CCGCGGTGGCGGCCGAGGTACCCTTTTATAAGGGTGTATCCCCTTTTGGTAACTTACTGT
TTGTTAATTTGTAGTGTTCCCTGCCAGTAAGCTTGTAACACTCTAGTGACTCACCTTCGG
GTGGGAGGGTAGGAAAGGGAGAGGCCTGCCTCCTAAACCTGGGAAGATGGGGAGAGAGTG
GTAAACCTGAGAGCCCCAAAAACAAACCAAAACAAAAAAAAAAAAAAAAAAAAAGT

Sequence 499

AGGTACCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTGAGGAAAAAAGAAGGT
CCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAGTTGCAAGAATCAGAATGGCATTG
GACTTCTCAGCTTTCCTCATTAGAAGTTTAAGATCTGAAGCAATCTTTAACTCGTGAGG
AAAATTAAGTCTAATAATAATTTCTTCTTAGCCAAACAATCAAATGTGAAGCTAGAAT
AAGCATTTTCAGGTAAAAAAAAAAAAAAAAAAAAAGT

Sequence 500

CCGCGGTGGCGGCCGAGGTACTATTGACTAAAGTCAGTTGGGGGAGAGAGAGGCGGAAGT
ATATTACTTTTATGCTTGGTTATACTAGAGAACAATAAGAACTGACTAAAGAAACATTA
GATCAGTGGTCTCAGAGTATTGATATCTGGGAGTCCCAGCAACAGTCTGAGGAGGTTCA
TGAGTTCAGAAATATTTTGATAATAACACTAAGATGGTATTTACTCTTCTAACTGGGTAGA
TATTGCACTGGT

Sequence 501

CCGCGGTGGCGGCCGCCCGGGCAGGTGAGGAGTGCCCAAAGATTTCCCAAGTCCAGCCC
AGAGAAGCTGAAAGCCTTTCCCCAGGTGTGGGGCTGAGTTAGATGTGGGTCATAAAGGA
TGTGGCCTCGAGGCTGGGAGGCAGCTGGGCAAAGTGGGAAGCCTCCCTACTCCTGAGACA
GTGATGGCTCAAATCCAGGCCAACCTGGAACATGATCCTCAACTTCTCTAAGTTCACCTT
TCCCAGGTGTGAAATGGGTTGTTCTGGGAATTGAGTGAGCTAATGATACACTCCCTGGCA
CACAGCGAGCCTNAAAACGCTTGTGTCCCTCCCTACCTCACAGCCCATTTTAGAAGTTT
GCTGTCACTTA

Sequence 502

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTTTTCTTA
TGAGTGGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGAGTGGGAGGTGACTGATCGT
GGAGGTGGATTTCTTATGAGTGGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGATTG
GCTTATCACCATCCCTCCTTGGTGCTGTTTTGCAACAGTGAGTGATTTCTTGTGAGATC
CGGTTGTTTAAATCCANAGGCACCTNCCCCTACCCTCTAGCTCCCATTCCTGCCATGTAA
GACACCTGCTCCCCCTTTTCTTACCCCATGATTGGAAGCTTTTTGAGGCCTCCCCAGA
AGCTGATGCCAGCCCTATGCTTCTGCACAGCCTG

Sequence 503

CTACTATAGGGCGATTGGAGCTCNCCGCGGTGGCGGCCGAGGTTTTTGAATGCACGTGG
ACACGAAGAGAGGGTATAGTAACCTGATCAGTCTTCGAGGCTGCTGTAAAGATATTCATT

TABLE 1

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TAACCTCACCACAGCCCCTGAATTGTTTCATCATTTCTCTGCCTGCATTTTCAGGGCCTTT
TCCATTCTCCACCCTCCAACACCAACCCCTACTACGCTGAGGGCTCCTGGAGGGTTCT
TTTTCTCTCAATCAATTCATCTTTCTGTGAACCTATTGTTATTATTCATCTTTGTGCTC
CCAGCATGTAATACAATGCCTGGCACTTAGGAGAAGTTATCACGGACGCGTGGGTCAAG
CTTGACCTGCCCCGGGCGGC

Sequence 504

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCGTC
CGAAATTCCTGGTTAAGGATTATTATAAAATAGAATGGTATTTAGTAAATCCCTGAGGC
TTAGGAGTCCAGGTACAATGTTGGTTCTCAATTAATAATATCAATGTCTAGGGACACT
TAGGAACACAGAACATATATTAGAGCTAGAAAATATACAGCTTCAGACCAGGCAAAGTG
CTGGGATTACAGGCGTGAGCCACGCTCGTCTCACATGGGGTTTTATTATTAGGATG
GTAAGAGTATTATAAGGGATTNGGTACAAGGCATAATGAGTCCTTTGCTTTTAGGCTT
TTGACTTNTGGTTTTAAGACTTTTNTTTAGCTTTTTGTTNGTTAGACANCCATTGGGCA
AGGCTTNGGTTTTTAATAAAGTTTGCTTGGGATNAAACNTGACCTTAATGGAATTGTC
CCCTNCCCCCAAAA

Sequence 505

CCGCGGTGGCGGCCGCCGCGGCAGGTACTACTGATACAAATAGCATGGATGAAACTCAAA
ATCATTATTCTAAGAGCCAGATACTATAGCCTGTATTTTATGATTCACTTTCAATGAAAT
TCTACAATAGACAGAACTATCTATCAACAGAAAGCAGATCAGTGGTTTTCTGCAGCCAGA
GGTATGAAAGGTTTGAACATGTGGCACCAGTAGGACATATGGAACTTTTTTGGTGTGA
TGGAAGTATTTTTTATCTTGATTGTGTGGTGTGTTATACAGTGGTATACATTTGACC
T

Sequence 506

GGGGCGGCCGCCCGTTTCAGGTACACGTNTTTNCCAACCAATTTTATANGNATATATATAT
TCTACTTCCAACACCCNTNTTCATCCTGGTNCAATCAAAGCCTGGTTNTGGCCAACAANA
AACTCGTCAGGAGATCGAAGGNTGTAGATGTCTGCACGTGGCTTCTTGGAGGTCCAGNG
GNGACTCCCTCTTCCAAAATCCATTCTGTACCCGCTGGCTGCTCTAACGGGCAGGACAAC
AGCGTATGAAGCCTGACTGCAACTAGGAGAAGTACCACACTCCCGGACGCGTGGGTGCAA
GCTTGTACACCT

Sequence 507

GGCCGAGGNCAAGCTTTTACCCACGCGTTTGAANCCATCTGTTTGGNACCCNGAAAGGGG
GCAGGAAAGGCTGGGGTCCCAGNCCACCCTAAGGNGATCTGAGTGGCCAGGGCTNCAAG
NNNNCCACCTGNCCAATGGGACCCCTTCTGNCCTCACCTACAAGGGGCACAAAGGGAA
GACACCAAACTGGCAGGAACTTTTACGCAATCAAGGGAAGGAAAGGCANTCCTGGCAG
AGGGAACAGCANGCCAAGCGGGAGAAGGCTCAAAGTAAGGAGGGTAAG

Sequence 508

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGCTTTTCAATTTTATTGTAT
AGTTTTTGATAATGTTAATGTCTGAGATCTTTATGGGTGAGTCTGCTGTCATTTCTGCTA
TTTCTCGTAGTGATTTGCTTGATGGTTTATGATTTTTTAAAACTGAATGTGTATTAGA
ATTGTGTCTGGTAATTCTTTAGGGACCCATTGTAGATGTATTTCTTCAAAGAGCATTTGT
GGTTATTATATTTGGGTGCTTGGGGCACTGCCAGTACCTGCCCG

Sequence 509

CCGCGGTGGCGGCCGAGGTATTGAACCAGGTCAAACATTGTTGAATATCAAACCCAATC
TATTTAATCTGTAAGAAACAAGGACCCTGAGAAAGATTCTGACCAAGGGTATGTGATCGG
AACTTGACAGATAAATGTAGTATACTTGTAAGCCATACTGTGAAAACTTGGGGATTA
TTTGAACACAAATTATCACCTGGAAAAAGACAGAAAACAAGGCAGAAGACTGTGCAAAGA
GGTTGGAATATTCAAACCTTCAGATTAGAAG

Sequence 510

CCGCGGTGGCGGCCGAGGTACCCAANNGATATCACTGTGAAGGTTTGGATACACTGACTG
AGGAAAAAAGAAGGTCCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAGTTGCAAGA
ATCAGAATGGCATTGGACTTCTCAGCTTCTCATTAGAAGTTTAAGATCTGAAGCAATC

TABLE 1
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TTTAAACTCGTGAGGAAAATTAAGTCTAATAAATAATTTTCTTCTTAGCCAAACAATCAA
ATGTGAAGCTAGAATAAGCATTTTCAGGTAAAAAAGT

Sequence 511

CCGCGGTGGCGGCCGCGACCGCTTGGCGGCCGCGGAGGTCAAGCTTCGACCCACGCG
TCCGAAATTAATGAAATGTTTTACATTCTTTAAAAACCTTTGAAATATGGTGTGTATTT
TATGCTTTAGCAAATCTCAGTTTGGACCATTTAGGTGGTCAGCAATTACACATGGCTAG
AACTAAGAGCAATCAGTTTTNTCCACAGTTTTCTAAAAATTTCTTGTCAAAAATCTTG
ATGGTATGAATTAATCTTTTAAAAAGTGCCTTNACCAGCAACAGAAAAAACCCTGGAG
GGGTATGGGTTTTAAAGCTGGTACCTNGGCCGNTCTAGAACTAGGTG

Sequence 512

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCCCAAAGTGCTGGAATCA
CAGGAATGAGCCACCACACCCAGCCAAATTGGGCACAAATTTAAAAATTTGACTTTTATTA
ATGATATGGTAAGAGATCTAGCTTGGTCATGACACCCTTGTTTATACGGTGACAGGCA
AATCATTTAAAAATATCTAACTATAATTCCTGTAGTTCACATGAATTGGATATTCTGA
AGCGGACGCGTGGGTCGACTTGTAACTGCCCGGGCGGCN

Sequence 513

CCGCGGTGGCGGCCGCGGCCGAGGTACAGAAAGGACAAATACATCAGTAGAAAAGAAGA
CAATATAAGGGCAGATTGAAATATATACGTGAACGTCACAAAGACCAATTACTGCCATTT
CAATTCAATGAGGAAATAATGATGTATTTAATAAATAGTGCTAGAATGCTGCATTATCTG
TCTAGGATGAAAAAAGT

Sequence 514

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCACTATAGGGATCT
AGATCACGAGCGGCCGCGCACTTTTTTTTTTTTTTTTTTTTCTGCCACCTCTTTC
ACTTGGGAATCTATTTTCACTGCTCTCCAAAGTTTTGAGAAGGCAATAGTCCTGGAAAAT
GGGTCTGAGCTCCTCTCAGCAGTCCTGCTTCTTCCACCTGCACTGTAAGGNGACCT
AACTGGGTCTAAGACAAAAGTCGGACGCGTGGGTCTGAAGCTTGACACCTT

Sequence 515

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTTAGTTACCACTTCA
TACTGGAGGGCACTGTACAAACTTCTGACTATCCAGACTTGAAGCTGGAAGCAAATAC
AAGTCTGAGGGGCTCTAAGCTGGGAGGTTCTGGCCTCTCCCTAGCTCTCTATGGCTCTAC
CTCTCTGCTTGAAGCTCCCTGCACTGCACTCCCATTAATCTGACTGGGGATAGGACCACT
GCTGACAGGGCCCACTCAACTTCTTTCATTGCCCTCTTCCAGGAAATCCCACCTGGG
ATACTTCAAAGACCTCATATGCTACAAAGATCAAGGCCACCTAATGAGTGCTCTAGAGAT
CAGCACCAAAGATGCTTGCCAGAGTCTTCTCTA

Sequence 516

ACACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCAC
GCGTCCGGGGAACCTTGTTTCAAGTTCTTTTAGGCAACCCAAGCCAAGACAACAAAGTA
AGATAGAGCCCCAAATGTGGTCGTATAAGGTTTTTCAAAGAAAGTAACACTTGAGTTAGG
TCTTAAAGTTTACCTAAGAACTGCCAGGTGGACAAGAAGAAAGGGTGTTCAGTAG
AAATAATANCATGGACAAAGGCAATGTAGCAGGAAAAGTNTTCGTAAATTCAGGGAATTT
CAAGTGTTCACGATGGAAGGAGCAATAGAGTCATTTACTTGCGGTGGCAGGGGATGTTG
GAAATGTAAACAAGAGTGAGATACAGAAGATTTTATGTGGCATGCCAACTGGGACTTTTT
TTTGTAACAA

Sequence 517

TCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGAGAAATACCATTTGCACA
GTCAATCACTTCTGACCAAGCTTATCAGAAAAAGGAGAAAAGAATGTCTCCCCACTAAAT
GTTCTAGGGNGGGNGAGGAAANCTAGGGTGGNTATCTAAATCAACAAATATTCTAGATAT
TCCAATATCTAAATFATTGTTGGAAATACTCNTCCTGAAGNGNTCATTTGAACNCTAAAG
CAGGAGNACAGCNTTTGTTGTATCAANATGGGCAGGGGTTTTTAAAGGGTNTCCATTTTT
TNTTANTTTCCNCATTATTAATTCNTTNTAAATNNTTTTTAGGACCAAAAATTTTTCC
CNTTCTTNGAGGTNTTAAAGGGGATTTAANAAATGGGNNANNTGGGGGGTTT

TABLE 1
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Sequence 518

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGGTAGAGAAAGATTCAA
AATGCTGCTGTTCTACCTGAGATGGGAAAAATGAAAGCAAATAACATCAACAAAAACAA
ACAAACAGCCTTGTAGTTCCATGTCACTAGCCAGGGATTAAAGACCAGCCTAGAGAACAT
GGTGAGACCCCTTCTCTACAAAAATAAAAAATAAAAAATACAAAAATAAGCTGGACATGGTGG
TGTGTACCTGCCCCG

Sequence 519

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATGCTTCGACCCACGCGTCCGCTCACT
TCATCCTCCCAGCAACCTATTATGATCCATTGCCACACCAACTTGCTGATGAGGAAAGTG
GGGCTTAAGGAAATTAAGAGCTGTTGTGGGACTTCCAAAGCAGAAGACAGTAGGCTTTC
AGAAATTTGATAAAAAATAGCACTTTGCATTTNTTGAATCTTGAGCTAAATGGAAATTAAT
ACTAAACATTCTNCACTGGTAAAATAGAGAATAAGGATATTAACAGTAAAAGAAAAGAAG
AAGAAAAGGAAATGTGCTTCCACAGATTTAGAAACATAAGTAACAATCTAAGGTTAAGGC
TTTTGGCACCTGCCCGGGCGGCCCGCTCTAGAACTAGTGGGAT

Sequence 520

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCTTCGACC
CACGCGTCCGAGCTATGGACCTAAGGCAGCGAGTGGATTCAATAGTCCTCTTCAGCTGA
ATGCATGCTACAGTATAAGAAAAAGCTGCTGCCTATATGAAGTCTTTGAGAAAGGTTTG
TAGCTGCTGTTAATATTTAAATCAGAGGAAACATCAGGAGTCATTCTAGAGAATGGCAA
GAGTTTTTCTGCAGTTTATATTGTTGACTTTTTATACGATATTGGGGTACCTCGGCCGCT
CTAGAACTAGT

Sequence 521

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTCGACCCACGCGTCCGC
TAGGAACTATGTTAAAAAAATTCAGAAAGAATTTAAGGGAGATTACAGTGTTACTGTG
ACACCAGGAAACTTAGAACTTTGTGTGAAATAAGACTGGCCAGCATTAGAGGTGGGTTG
GCCATCAGAAAGGAAGCCTGGACAGGTCCCTTGTTTCAAAGGTATGACACAAGGTAACCCG
TAAGCCAAGGCACCCAGACCAGTTTCCATACATAGAACCTGCCCC

Sequence 522

CGACTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTT
TTTTAAGTAAAGAAGGTTTTATAATATAGTGAAAAACAATACGGAGATGAAAACCAGGAGA
CCTGGGTCCCGCCTTTGTTACAAATGCCTTTCCTAAAAGCTCCAGAATGGTGCGAGGTCA
AAACAGATGGGCAGAAAGGAAGTGGTCATCAGAGCAAGAGAAAGAGCAGGTGCCAGGCAC
TCACGTGTGCGGTTCATATCAGGTAGAGATGATGAGTAGAGATCTGCCCTAGAAGACACTG
AATTCTGAGATTCAAAGGGGAAAAGTTGATTTTATAGCCAGTGATTTTATAGCCCACTTT
CCTGCCCCACCCCTACTNTAAGAATTGCGGACGCGTGGGTCAAGCTTGACCTGCCCG

Sequence 523

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCCAGAATA
ACTAAATAAATAAAAGGCTAAAGAAAACCTGGAACAGTACTGCGTCTCCATCTGAGACGCA
NTCTTCTACTTCCAGCATCGNAGAGAAGGGCTAGGGACAATTTTTTTTCAAAGATTAT
ATACAGGCTTGAATCCAGAAATTAAGGNTAAAAGCATAAATATTGATAATTTCAACTAAA
TTCAGAATGGNTTCAGAAAGATATGATACAACAATTTAGAATAAAACAAAGCAGAAGAGC
ATNATATTTTGCGGACGCGTGGGTCAAGACCT

Sequence 524

CCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACGCGTCCGCTTAAAGATTTTTT
TTTATGTAACTGTTGAATATTTGAAATAGTCCACTTCACCTTAATGGGTCTTGCTATC
TTCATTAGTCTTCAAAGAAAAACCATTTGCTACCAAAGTAAATCAGTATTTTGAATGTGC
TTCTCTTGTTTTTTGTTTATTAGCTAGTTCCTGTAAGCATTTCCACCAGAACTTGAGGCA
AATCGTAAGGAAGCTGTTTCTTTTAAACACAAACCACCACCAAAATTTAAATGTACCT
GCCCC

Sequence 525

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTCAAGACCCGCTGGC

TABLE 1
87/467

CAACATGGTGAAACCCCATCTCTACTAAAAATATAAAAAATCAGCCGGGCATGGTGGCATG
TGCCTGTAATCCCAGCTACTCAGGAGTCTGAGGGAGGAGAATCACTTGAACCTGGAGGCA
GAGGTTGCAGTGAGTCGAGGTTGCGCTACTGCACTCCAGCCTGGACAACAGAGGGAGACT
CTGTCTCAAAAAAAAAAACCTACAGCTGTTCAAGGACCAGCTGACAGGTCAAGTGTGGCC
TTTTCTGGTCTTTGAACACATCATAGAAAGTGACAAATGCTGCAAAGCCATGAAGAACAT
GAACTATAAACGGGTAGACTAACTGCCAGCTTAGACACTTATCTATGCCACAAAACAGC
TGAATT

Sequence 526

CCGCGGTGGCGGCCGAGGTACCAAACCCGGCTTTTTTCGAAATACCTGCAAAAAAAGT
GGATGATTCCAAATCCAAGTGTCTGCTCTCTCCAATTCAGAACAACCAGAAGG
GCCTGTCTTGAATTAGGTAATGCATTAAAGAAAAGTAGGATTATTATATTCCAATTCTTT
CCATCAGATGTAAACATTATTGGTAGATCAGATCTGTTTTAATAAATCTGTAAGAAAGA
CGTGAATTATAATTATGTTACCATTGTATGTAAATGGCATTTTAACAAGACATATTAAT
ACATTTTTATAGAGTACCTGCCCG

Sequence 527

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGT
CCGGTTAATTTGGGAGAAGGAAGAGAGAGTGACATATTTGGCTACCTTCAGGGAACAAAA
TCTAACAGCACAGATGGTAGTAGAGGAGATACCAATTTACATATTAAGGAGCTAGAGTTG
ATGATGGTATGACTCAGCCCTCTGAGATTAAATCTACTTACTAGGGCTATGAATGGAGA
TAAGTAGGTATCCCACCTTTTATTAGAAGGTTCTTAAAATAAATATGGGACTCTGGTCA
GAGAGTAGGGCCATTAATTTGCTCCTGGTTTTTACCTGGCATCCACCCACCAGTACCTGC
CCGGGGGGCGGNCGGCCCCGCCCGGGCAGGTCCCGCACTTTTTTTTTTTTTTTTCTTT

Sequence 528

CCGCGGTGGCGGCCGCCCGGGCAGGTATTGCCCTTTGATGTCCCATGAGGGCCAGGCC
AGGCAGAACCCATCCCATTTTATCCTTAAACTCAGAAGGAAATTTGTCTAAATATTTAAG
GATTAATATGGGGAATAAAAAATGAACCTTAAACCCTGCCACTGATACACAAGCTGTCTC
TCTTAGAGTTCAATGAACACTTCAGGAGAGTATTTCCAACAATATTTAGATATTGGAATA
TCTAAATATTGTTGATTTAGATAACCACCCTAGATTTCTCACCACCCTAGAACATTTAGT
GGGGAGACATTCTTTTCTCCTTTTTCTGATAACTTGGTCAGAAAGTGATTGACTGTGCAA
TGGTATTTCTCAGCTAAAATCTCCCTTATGAACCCTTCTCGAAATCC

Sequence 529

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCCATTTCCCTGAAACA
AGCAGCCAGCAACTATCTCAGAAATGTGTCAATTTTACTGGTTATAATTTCTAAAAAGCT
TGTTTTCTAAGATATGAAATGCCTGCCAGTATACAACTGTTGTAAGTACTTCCCTTTT
TGCTTTTAGCGGGGAAAAAATAGCTTAATGACAGCATAGAATCATGTAGTAAATATAATT
CATTTTTTGAAAGGTTCAAGTATATCCTCTTCCATTTGTTTATTTTAAATGATCTAATTG
CAAACATGTCATCACTCCCTTGATGTTTACCTCCTTGTTATGCATTTTTAGCAGGCTTTA
TTGTCACCTGAGATTTTTTTTTCTTTGACAGGCCGGAGTCTAGATGAAGGAAAATGTGT
TAGAAGCACCTTATCCACAGATGGGG

Sequence 530

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGTAGCAGAGCAGCTCCCTC
GCTGCGATCTATTGAAAAGCTTGAGTCGACCCACGCGTCCGCTGCATAAAAGTTATGCAA
AAAGCATTTTATGATATACCAGCAAAAAACATGGAAAATGAAATTTTGAAGCAATGCC
ACTTCAAAGATCCCTCAAGTGCCTAGAGGGAGAAAATGAGTTAATATGCTTTGAAGAACT
GTATCCAGAAAAATAAAATTACAAAGGAGGAGAGGGATAGGATTCCAGGACAATCTCAAAA
CTATTGCTTTTTCTAAATTCATTGCAACCTTAAATCCTAGCAAGTTCTTTAATGTAAA
TTAACAAGCTAATTCTAGAATTCATATGCATATTCAAAAGTCGAATAATTGTCAAGGCTA
TCCTGTAGAATGGGACAGAGAGGATTGAAATTT

Sequence 531

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAATCCCGTCTTAC

TABLE 1
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AGAAGAGAAAAGTGAAGTTAGCAACATAAAAGTATTTCCCGTAAGTAAACAGTAGAGCC
AAGATCTTGACCTACGCCATCTGATACCCTGAGCCCATGCTATAAAAGAGGAGCATTAGA
AATATTTGAAAGATAGAAATGAGAACTAGTCAATATTTATTTTGCTTAGCACTGTATTCA
GTATTATGGCATCTTAAAGTAGTTAAGACTCAATATTTTCATCAAAAAGTTTAAATCTA
ATCAGAGAAT

Sequence 532

CGCTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAATAAGCCCACCC
CACTAGGAACTATGTTAAAAAAAATTCAAGAAAGAAATTAAGGGAGATTACAGTGTTAC
TGTGACACCAGGAAAAGTCTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGG
TTGGCCATCAGAAGGAAGCCTGGACAGGTCCCTTGTTCAAAGGTATGACACAAGGTAAC
CCGTAAGCCAAGGCACCCAGACCAGTTTCCATACATAGAAAGTTACAGCTGCTTTTATAC
CCCCTTGCCCCGCCAACGTAGT

Sequence 533

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTTCGCACTTTTT
TTTTTTTTGTAGAGACAGGATCTCCTTATGTTGCCAGGCTAGACTTGAACCTCTGGGC
TCAAGGGATCCTCCTGCCTTGGCCTCCAAAAGTGCTGGGATTATAGGTGTAAACCAAGTGT
GCCTAGCCTACAGTTTTTTAATTTTATAAAATGTTATTTCTAATTTTTCTCCAAAAGTAA
AAGTGGCATTCCAATGGCAATATTAAATCAGGTATCCAGAACTCTTAACCTAAATTTGGG
TGAGATGAGGAAAAGTGATTGTTAATTTTATGTGTCAACTT

Sequence 534

CTACTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCCGGGCAGGTCTTCGACCC
ACGCGTCCGTAGTAATAGGAATTAAGTACCCCTTTTGGATGGGGGAGAGCATCAGGCTG
GGGTCAGGTAAGTGTAATGGCCTTCTGAGCATGCTCTTCTAGGCTGACTCCAGCCCTG
ACTTGAAACCATTAGCGCTAAGTGTCTGTTTTGAGAAAACTTTCCAACTTTTGCAT
GAGAACTAGAAAAAGGAATGTATGCCACGTAAGTGGATTACAGAAATGAGTTAATTGTC
TCTGTGATAAAAAAAAAAATGAAATATTTTCTTATTGAATTAATTTTTTGTCTTGAA
GCATTTTCTAGTGATAGAATGTATTTGTCTTTTTTCTGGTGGTACCT

Sequence 535

CCGCGGTGGCGGCCGCCCGGGCAGGTGTCCCATGAGGGCCACGGCCAGGCAGAACCCA
TCCCATTTTATCCTTAACTCAGAAGGAAATTTGTCTAAATATTAAAGGATTAATATGGG
AATAAAAAATGAACCTTAA

Sequence 536

GAANTGGAGCTCCCCGCGGTGGCGGCCGAGGTCCAGTAGATTTGGAGAGTAATACAAATC
CTTTCTTTCTGGTTAGAACACACTGCCAAAAGCCACCTCTTTCATCTAAGGAAAAGATTA
AAAATGCATGTTGATATCTCCTAACTATCACACAACTCCACTATTACAATGAAAAATCT
GGTCCCCTTTTATTGCCTTTGAAAACCNNTTTGCCGAGGTGGNNTTCAAAAAAACNCGNG
ANTTTTAAAAANTTGGNNTTTGGTTTTACCNGGGGAAAGGGGACNNTTNNCNNTTTTTTT
TTTTTTTTTTTTTTTTTNAANGNGATTNGGTTNNGGTTNTNCCTGGGGCCAAATNCC
NTTTTGNNGAACCTTTTTTGGGGTCCNAAAANNACAAAAAAGGGNTTGGGACNATNT
TTTTGNATNCNCNCAAAAAAATTTTTTTTTT

Sequence 537

ACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTTCGACCCACGCGTCCGCTA
GGAAGTATGTTAAAAAAAATTCAAGAAAGAAATTAAGGGAGATTACAGTGTTACTGTGAC
ACCAGGAAAAGTCTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGGTTGGCC
ATCAGAAGGAAGCCTGGACAGGTCCCTTGTTCAAAGGTATGACACAAGGTAACCCGTAA
GCCAAGGCACCCAGACCAGTTTCCATACATAGAACCTGCCCG

Sequence 538

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCAAGCTTCG
ACCCACGCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGGGAGCA
CAAAGATGAATAATAACAATAGGTTACAGAAAAGATGAATTGATTGAGAGAAAAAGAAC
CCTCCAGGAGCCCTCAGCGTAGTAGGGGGTTGGTGTGGAGNGGTGGGAGGGAATGGAAA

TABLE 1
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AGGCCCTGA

Sequence 539

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGACAAGCTTCGACCCACGCGTCCGCAAGT
TTTCAAAATGTAAATACTTCCTCTGTTTAACAGTCCTTGGACCATTCCTGATCCAGTTCAC
CAGTAGGTTGGACAGCATATAATTTGCATCATTTTGTCCCTTGTAATCAAGATGTTCTG
CAGATTATTCCTTTAA

Sequence 540

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCCATTTCCCTGAAAC
AAGCAGCCAGCAACTATCTCAGAAATGTGTCAATTTTACTGGTTATAATTCTTAAAAAGC
TTGTTTTCTAAGATATGAAATGCCTGCCAGTATACAACTGTTGTAAGTACTTCCCTTT
TTGCTTTTAGCGGGGAAAAAATAGCTTAATGACAGCATAGAATCATGTAGTAAATATAAT
TCATTTTTTGAAGGTTTCAGCTATATCCTCTTCCATTTGTTTATTTTAAATGATCTAATT
GCAAACATGTCATCACTCCCTT

Sequence 541

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATTGGA
TTGTTAAAAGAGGAGTCTAGAAAAATTAATCCTGAACCCTAAAGAATAAATCTTAAGTGG
TGGATACATGGGTTGAATAGTGTGCTCCAAAATTCACATCCACTTGAACTTCAGAGAGT
GGCCATATTTGTAAATAAGGTATTTGCGGGTGTAAATCAGTTAAGGATCTCAAGATAAATT
CATCCTGAATTATAAGTTGCTTAAATCCAATTACTGGTATCCTTACAAGAAGGTGAGA
GGAGACAGAATAGAGCCATCTGAAAAGGGTCAGAAA

Sequence 542

CTAACACTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGAC
CCACGCGTCCGCAAAATCAATCAAGGGTTCCTACTCAAGTAAAAAGCAACTTGTAGGAA
AATAATAGGGGATATATTTTGCTCATTAAGGATCTTTTTATAGTGGCTCTTGGTGCAGTG
CCTGTGAGTTAGCCCTTATCCTCAAGGAGCAGCTTAAAAAAAAAAAAAAAAAANGT

Sequence 543

CTACTATAGGGCGATTGGANCCTCCCCGCGGTGGCGGCCGAGGTACTTCCTGGAAATCAA
TTAACTGAGTCTTTTGAACCCCTAGAGAAGATAGGAGAAAATTGGTTCAGANCGAGCAT
TTAAATTAAGTCAGCAAAGTCAGAATTTAAATTGGGCAATTCTTGTCTACATTTTCTT
TAACTCAA

Sequence 544

CTNACTATAGGGCGANTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTGCCAAAGCC
TTAACTTAGATCGTTACTNATGTTTCTAAATCANGTGGAAGCACATTTCTTTTCTTCTT
CTTTTCTTTTACTGNNAATATCCTNATCTNTATTTTACCAGTGGNGAATGTTTAGAATT
AATTTCCATTTAGCTCAAGATTCAAGAAATGCAAAGTGCTATTTTTATCAAATTTCTGAA
AGCCTACTGTCTTCTGCTTTGGAAGTCCCACAACAGCTCTTTAATTTCTTAAGCC

Sequence 545

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATCACACAGAAGGAGG
AGGGAGCTAATCCAGTAACAAACATTCAAAGATTAAATTGTAGATATGCACCTCTGTATT
TGGCACTGTTGATTAAATTATAACACCTTCCTCTCAAAGACAGGCATTCTTAAGCGTTA
GTCACAATATACCAGAATTTGCTATTCATATTAACCACCTTTTAACTTTATAACAGT
AACCAATTATTATAGTTTAAAGAAACAAACGCAATGAGAACTGGGAATGGAATCAAAT
CCTCCAAATTTCTTGCTATGCTCCAAGCTGCCATCCATAAACAGGTTTAATTTGGGTAAT
TTTTCCATTGTGGGGAAGGGTCAACAAGAAACAATTTAAAGACAATATTTTCCAATACAA
ATAAAGACATACACTTTTTGTT

Sequence 546

TACTTAGGGCGATTGGNANNTCNCCGCGGNGGCGGCCGCCGGGCAGGTACAAGCTTCGA
CCCACGCGTCCGAAATAATAAGCTAGAAGTAATATTTTCTTTTGTCTATTTTCCAAA
TTGACTCGATATTGATGGCTACTTTTGTAAATTTTATTTAAGNTTAAAGGGAATATTTA
TTGATCACCTCTATGTGCTCANTACCT

Sequence 547

TABLE 1
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TACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTCCAGTGCTAAAACATCAGATAAGAGCCTACCTGACATTTTGGAGAATTTGCTGNGCTG
GGATTGATATTCGCAATTGCCTAAGAGTAAAAAATAAGACGGACGCGTGGGTGCAAGCTT
GACCTGCCCCGGCGGCCGCGGCCGCGGCCGAGGTACCACAGGAGGCAGAAGGAAATCCTCA
ACCTTCCGAAGAAGGCGTAAGCCAGGAAGCAGAAGGAAACCCAGAGGAGGGCCGAATCA
GCCTGGCCAGGGATTTAAAGAGGACACACCCGTTAGGCATTTGGACCCTGAAGAAATGAT
AAGAGGAGTAGATGAGCTTGA

Sequence 548

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGNNAGGGTCGCGGTGGGTGCA
CTNANGCTAGAGAATTGTAATACGACTACTATAGGGATCTAGATCACGAGC

Sequence 549

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTTTTTTTTTTTTTTT
TACCAGAACATCACATAAGTTTATTTAGATGTAACAGCAATGTTAAATTGACAAGTTT
AATTCTTAAGTGCACCAAGTAACTTAGCCATTTAAGTATTTTTTAAGTTATTCCCTCC
AAAAAACTGAGGGAGCTTTTCTTTCCACCACCACACCATGGTTTCCAATAGTTCTCTT
TTTGGAGGACTTTTCAATTGATGAGTAACTGCTTTAGATATTTAGAACTTCATTCCCC
AAATGAAAGCTAATCTGGACAACTATATATTGCATAGATTTCTCTACAGATTCTTTGCT
TAAAA

Sequence 550

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGGATGAGGCGGGGA
GGTGGGACCCCCAAACATATATCAGCCCAACAGCCCTAAGTCTCCTTCTTTATTATTAGG
AAAACAACAACAACAACAACAAAAAATGGCGTCATGAATATGAACAGCATTGTCAGAT
GAATTAGTTGAAGTGGNTTTTTTTTGTTTTTTTTTTTTTTTGAACCTGCCCG

Sequence 551

CTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCANGTGCTTCGCCCCAC
GCGTCCGNAATAATTGGAAANGGCCTATAGATTAAAAAGCTGAGAAAGTATATGGTAGGG
AGCACACTCCCCACAAGTATGAACTCTGNGATTACGACATCTCATAAATNCATGAGCACT
CATGTTGGCTTGCTTTGTAGCTATGAACTTACCCTGTATTATTGAAACGTCAGCATAATG
ACTGGAAGGAGAAATTGGTCCATTTTAGAGCATTACTATTATGCTATCTGTCCATTTAA
TTAATAATTGCATTAATTCATTTAGAAAGNGCTATTACATTNGTAGTAAGAAAGTAA
TTCATATATAAATTTGATTATCAGATGGTTTACTTACAGATACTTATTTTCTGTAA
ATAGGAGAGTTTACCTGAAGAAAAATAAACTTTTNACTTTTCTGGGAAAAAA

Sequence 552

CTACTTAGGGCGAATTGGAGCTCCCCGCGNGGCGGCCGCGCCGGGCAGGTACCAAGTGAA
TTTAAATAATTGGTGTGGATTGGCCAGTAGCTAAGAAGTGGGCTTTTAAAGAGTNTTGAA
NATNGAANGGGTTTTNTTCTTTTTTAAAAAAGAAAAACAACTATTGATTGTCTATAA
TGAAAAGCTAGGNNTTGCCTNTTTCATGTNTACTCTCCTTCCAAATAGTTATATCCAAAA
CTGTTTTTCCCTCTCCCTACCTTGTCCCCCTATTAAATANAAACNNGGATTGATTAA
TGTCCCGCTCCTGAATACATGTAAATTTGTACCTCGGCCGNTCTAAACTAG

Sequence 553

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTC
CGCTTGCTAATAAAAAACAAACATTGCTAAATAAAACAACCTGAGAAAATCTCCAGAGA
ACTATACTGAGTGAAGGAAGAAAAATCCCCAAAGATTACACACTGTATGTCATTTATATA
ACATTCTTGAAATGACACAATCACAGAAATAGAGAATACTGGTCACTANTGCATTAAGGA
AGGTGTGGAAGGATGTAGTGATGGGAGGAAATGTGTATGGCTGTAACAGGGCAACAGAGG
CNTCATTGTGATGATGGAAGTGTCTGTNTCTTGGGTTTTTTGAATGTCA

Sequence 554

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAG
AACATCTTGATTTACAAGGGACAAAATGATGCAATTATATGCTGNCCAACCTACTGGTG
AACTGGATCAGAATGGTCCAAGGACTGTAAACAGAGGAAGTNTTACATTTTGAAAAC

Sequence 555

TABLE 1
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CTACTTAGGGCGAATTGNANCTCCCCGCGGGGGCGGCCGCTAAAGGAATAATCTGCAGAA
CATCTTGATTTACAAGGGACAAAATGATGCAAATTATATGCTGTCCAACCTACTGGTGAA
CTGGATCAGAATGGTCCAAGGACTGTAAACAGAGGAAGTNTTTACATTTTGAAAACCTG
CGGACGCGTGGGTCTGAAGCTTGACACCTT

Sequence 556

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTGG
TTTTGGTTTGTTTTTTGGGCTCTCAGGTTTACCCTCTCTCCCATCTTCCCAGGTTTAG
GAGGCAGGCCTCTNCCTTTCCTACCCTCCCAACCGAAGGTGAGTCACTAGAGTGTTACAA
GCTTACTGGCAGGGAACACTACAAATTAACAAACAGTAAGTTACCAAAAGGGGATACACC
CTTATAAAAGGGTACCTN

Sequence 557

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCACGCGT
CCGCTTTCAATAGATCGCAGCGAGGGAGCTGCTCTGCTACGTCACAATCTTCAAAAAA
TGAACATGTAAGAAAAAGCAGTTTTTCATTGTGCTAATTATTGCAGGCCTTCATGCACGTA
AACCTCAACAAAATGTGTGCCAACAATATACAAATTTCCATATAAACAAAGTCATTGATC
ACTAACAAAATATAAACATGGNTTCTTTTATATTAGATTTTTTTAAAAAAAGCTATTT
ACCAGCAAGAAAAACAAGTACCTGCCCG

Sequence 558

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGC
ATTTATTAAGGCTTGATATGTTCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATT
GATCTTAACCACAAGGCTGAGAAGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTAT
TAAATCCTCCAGAGAAGCCTGTAGTGTGGGATGCAAACTATTTTAAGTGTGACCATGAGG
TGTTTTTTGTGGACCATTTTAAANCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGT
TAGG

Sequence 559

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGGCTTCGACCCACGCGT
CCGCTCCAGGAGACTTCTGCTTACCTCTCAGTGATCAAAAACCGTTTCACCACAGTTACT
TACCAGTCTCCTACCGATCCGCATTCTCGCAAGTGTCTTCACTCCATTTACTCTACTGCA
TTTTCACTGTATTTCTCATGCCAAAACCTTGGGCTTCTCCACCAGTCTGCACACGTTTCT
GCTCTCAATTTCTCACAGCCATCTATTTTCTTCTCCACTAACTGTTAGAGGGATTCTGN
AGAAATTAAGAAATTCCTATCACTCCTAAAAAAGTGCGGCCGCTCTAG
AACTAG

Sequence 560

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACG
CGTCCGCAAGTTTTCAAATGTAAATACCTCCTCTGTTTAAACAGTCCTTGGACCATTTCTG
ATCCAGTTCACCAGTAGGTTGGACAGCATATAATTTGCATCATTTTGTCCCTTGTAATC
AAGATGTTCTGCAGATTATTCCTTTAA

Sequence 561

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGCTTTATTTATTTCTT
TTAGGAATTGCAGGTTTCTAACAAGTAGGGGTGAGGGGGGTGTTACAAACCAGTCACTA
GGCAGGAACATTAGACTCCAAAAGCAGAGAAATGCTTAATTTTTCTTCTACCTGTTTAC
CACATTCATGTANAACGTAGTAAAAAAGATGGNGAATCAGGCTGAATCAATCTAAATAA
CAACTTAAGGCTCCCAAATCACATGAACCTAGGACCACTAAATCCAATGTCAGACGTGTT
TAAATGGNGCACTGCTCTACATTTTCTATTATGCAAAGAGCTAGAAAATAATGGTAGTG
TCATTATGACATTCCATGAAAATGAAGAAAATCTTTCANGAAAAATTTAGAAAATAAAAA
TGTTTACT

Sequence 562

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTGCCAAAGCCTTAAC
TAGATTGTTACTTATGTTTCTAAATCTGNGGAAGCACATTTCTTTTCTTCTTTCTTCT
TTTACTGNTAATATCCTTATTCTCTATTTTACCAGTGGAGAATGTTTAGTATTAATTTCC
ATTTAGCTCAAGATTCAAGAAATGCAAAGTGCTATTTTTATCAAATTTCTGAAAGCCTAC

TABLE 1
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TGCTTTCTGCTTTGGAAGTCCCACAACAGCTCTTTAATTTCTTAAGCCCCACTTTCTC
ATCAGCAAGTTGGTGTGGCAATGGATCATAATAGTTGCTGGGAGGATGAAGTGAGCGGA
CGCGTGGGTGGAAGCTTGACCT

Sequence 563

CTACTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCAGTAATCACATA
AATTCTGCAATCATCTGTTTATTTAGCTTAAGTGTTTTTTTTTTTATTTGTTGAAGTTGT
TGTTGTTATTNCAGTCTTTTTCTTATTGGGTGACCAGACTTGTAATCTGTAAGAAA
GTTCCATAAT

Sequence 564

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTTCTTCAGATTCAAAT
GCCAACACTAATTTGAACTTCTTTGGGTCTATGACAGTTTGCAAGCCATACAAACCCAAA
GAGCTAATCTGTGATTTCTTAAGTTGAGAAAATAATAATNATAACCACCACTGGAACCTA
CATAGGTTTGTNGNTTATTTAACATGACTTAACCTTTGTTTGTATTTTTTTGAAAAAAA
AAAAAAAAAAGTGACCTGCCCGGGGCGGCCGACGGCCGGCAGGTGCGNCTCAAATTNT
TNAATTTNTTTTGGAAAGACANGNATTTTTTATTTTGGCCAANGCTAAAGTTNACNCTG
GGCCTTTAAAGGGGATTCCNTNCTGGCCTTTGGGCCNCCAAAAAGTGCTTGGGATTNTTN
GGGTNNAAACCCCGNGGGGCCCTAGCCTACCAGTTTTTTTTAA

Sequence 565

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCC
GTGCAAATTTGACTTTGTAAATGGCCCTTGGGCTCTGGGAGGAAAGCAACTGTTGGGCCA
TGTGGTTGTATCTTTAGTTTTGTAAAGAATTGCCAACTGTTTTATAATGTGGGTATATC
TTCCACACTTCCAGCACAATGTATGAGTGATCCAGTTTCTTAGCACCATAGTCAGAATT
TACTGTTGCTACTATTTTTAGCTATCCTGATAGATGTGTAGTGATTTTTATTCTGGTT
TTGAAGCAGTGTCAATTGTCTGGGGTAAATCCTTGAGGTTTGTGTCTCAGTCAAGGGGAA
TCAAGGGACATGGACACACAAGTAGTGAATTTAAGAGTGGAAGTTTAATAGGTGA

Sequence 566

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTCAAGCTTCGAC
CCACGCGTCCGTCTTATTTTTACTCTTAGGCAATGCGGAATATCAATCCCAGCACAGCA
AATTCTCCAAAATGTCAGGTAGGCTCTTATCTGATGTTTTAGCACTGGAAAAAAAAAAAA
AAAAAAGT

Sequence 567

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTCAAGCTTCGAC
CCACGCGTCCGCATATTTTCACTTGTACAATGTGGGATGGGTGCAATTTATTCCATCT
TCACTAAAATAGAAGCAATTCCATAGGTACCATAAACCTATTTTAGGTACCACAAGGTGT
CTTTTACACAGCTCATTTGAATACAGGTGTTCTGAGAAGGGGTTTCTATTTTAAATTA
CCATATCAAATAAATGTGCCTTATTTTTTATAAGNCTTGTTAAATCAGTGTCATATT
ACTGTTTGGGGAAGG

Sequence 568

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAATAAGCCCACCCCACT
AGGAACTATGTTAAAAAAAATTCAAGAAAGAATTTAAGGGAGATTACAGTGTTACTGTG
ACACCAGGAAAACTTAGAAGTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGGTTGG
CCATCAGAAGGAAGCCTGGACAGGTCCCTTGTTTCAAAGGTATGACACAAGGTAACCCGT
AAGCCAAGGCACCCAGACAGTTTCCATACATAGAAAGTTACAGCTGCTTTTATACCCCC
TTGCCCCGCCAACGTAGTTAAGAGAACAGCAGCATAAGCGGCTGGCAGAGGCAAGGAAAG
ACCAGTNNAGAGAAAAAAGGCCATCTATACCAATTCTAAG

Sequence 569

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACGAGCGGCCGNC
CGGGCAGGTACACAAACCAGATGTATGCANTGATGCCAAAAGTCATCTNAAAATCCAAG
CTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGATTTACTTTGTA
TACTTCAAAAGATCTGGTCATGAAATTTTATAGCTAATACATAAAGNGCCGAATTGAAATC
CAGAATACAATAGCTNTGAAGGGCCGCTAGAGTGACAGATAACCAACCCATTCTACCTAAC

TABLE 1
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TCAGGTTGAGATTGCTTTAGAACCTATCATTGGGCTTTAAATGGTCCACAAAAAACAC
CTCATGGGCACACTTAAAATAGTTTGCATCCACACTACAGGCTTCTCTGGAGGGATTTA
ATACTTTGGG

Sequence 570

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTATTTCCCTCAGTAAC
ATGTAATTGCTACATTTTTTATAAGAAGGTATGGTTAGAAAAAATGTGAAAGATCACTT
AAACCAAAGCCAGTTACAAGGAGTAATCTCTCCTGTTGGTTTACCTTCACCTCANAACTA
CAAGAATATTACAATACATAGTGAATAGTTGTCTGTAACATTTCTACCAGTTGTTTCANT
AGCATATTGGTCTTGGCATTCTTGGCACTGTGGTTCTGCTGTATTATTTGTGATGTCTT
ATTGTTTGTGAGCTTTTGTTTTTTTTTAAAGAAAAAACAAAACTAAGTG

Sequence 571

TAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGGCCGAGGTACCCAGTAATCACATA
AATTCTGCAATCATCTGTTTATTTAGCTTAACTGNTTTTTTTTTATTTGNTGAAGTTGTTG
TGTGTTATTTAGNCTTTTTCTTATTGGGTGACCAGACTTGGTAAAATCTGTAAGAAAG
NTCCATAATTATGGGGAAGATTTCTCTGAATTGGCTAAATTCCTGTAGCTGAAAAAAA
AAAAAAAAAAAAAGT

Sequence 572

TTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACGCGT
CCGCAAGTTTTCAAATGTAAATACTTCCTCTGTTTAACAGTCCTTGGACCATCTGATC
CAGTTCACCAAGTAGGTTGGACAGCATATAATTTGCATCATTTTGTCCCTTGTAATCAAG
ATGTTCTGCAGATTATTCCTTTAA

Sequence 573

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCCGAGGTACTTTTACGGC
TTCTGACAGGCCTCAGAAGAACATTCCCTACCCCAAAATTATAAAAATAATCTTGATAT
ATTCTTCTCAAACTTTTATACTTTTTTAAAGGCTTGGATTTTTAATCTATCTGGAATGTA
TTTTTAAATACTGAGTGAGTCACTTTTCTCCCGACGCGTGGGTGGAAGACCT

Sequence 574

GAATTGGAGCTCCCCGNGGTGGGGCCGCTCGAGGCCGCTCTGACCTCTTTAAGGNANACT
TATTATGCTAATAGTTGATGCGCCCTTTTGTGNANCAAGTTACCATAGGTTACATGATAA
NTATATATTGTTGNGATGATCTGATTNCCTGNNTNCCCCACCCNTGCAAAACAACAACAA
AAACCTTTACCAGGCTNTATAACANGGGGACCAAACCTTGNTTTTGTCTCATCTTGCCGGA
CG

Sequence 575

AGGTACTTACCCAGACAACGACGCCGCTTACCATGATGATGGACAACAGGCAACTTTT
TTTTGGAGTTTCAGCTTGCTTCCAACAGGGACGGTGAGTGTGAGGTTTATTCCCATTTT
TAAGACGATAGAAGTTTTCAGCCTAAGCCGTATTCTAGGTAAGCAGCTGGATTGCAAGT
TTTGTCTTGGAATTCTCCTTAATGACTAAAAGTTAAAGAATTAAACAACCTAGCTGGGC
TTAAATTTCTTNCTTACCCATTAGAAGTACCCTTGCCC

Sequence 576

TAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGNGGTCTAAGAGACAGGGTCTCACTACA
TTGCCTAGATTGGNCTCACACTCCTGGGCTCAAGCAATCTTCTCTTGGCCTCCCAAA
GTGTTGGGATTGCAGGTGTGCGCCACTAGGCCAGCTTGAAAAATTTTAAATGCATGTGG
TAATCCACAGGAGATCACATTTAGTATATGACCAAGTTAATTAAGAAGNCAAAAAACACG
TTAAATTTAAGCAGAATAAGGCTGGGTTCCGTGGCTCATGTTAGTTTTTATCCTTAAAT
TGTCTGAGTTCTTAGAACACAGAAAAACAAATTTGAATGCATTTCTAACAGCTTAATAA
TTTATATGTCCCATTATG

Sequence 577

GGGGNGGCGGCCGCGGCCGAGGTCAATGCTTCGACCCACGCGTCCGATTTTCAAGTTGAC
TTTTCTACCTTTAACCTCTTTATATAGCACAGTGCAATCTGGCCCTACTGCCACTTCAT
CTGGGTATCTGTAGCTTGAGTTGTAAAAAAGTGCAGGCGGACCT

Sequence 578

TABLE 1
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AGGTGTCGACTCAAGCTTTCAGATATAGGCATTCCAGAATCTTCTCTTTACGAGTTCACC
TGCTAGTATAATCTCCACAACCTGAATGGCATTGGTTGTTCTGTAATTCCTGCCAAAAGC
ATCACAAGTTGTACCTGCCCCG

Sequence 579

CCGGGCAGGTTACAAGTCGACCCACGCGTCCGCTTCAGAATATCCAATTCATGTGAACTA
CAGGAAATTATAGTTTAGATATTTTTAAATGATTTGCCTGTCACCGTATAACACAAGGGT
GTCATGACCAAGCTAGATCTCTTTACCATATCATTAAATAAAGTCAAATTTTAAATTTGT
GCCCAATTTGGCTGGGTGTGGTGGCTCATTCTGTGATTCCAGCACTTTGGGAGACCT

Sequence 580

GTGAACCTGCCCGGGCGGCCGCGCACTTTTTTTTTTTTTTTTTTTTCTTTTGAGACA
CAGTCTCACTCTTGCCAGGTTGGTCTAAAACCTCCTGGGCTCAAGCAATCCTCCCGCTTT
CAGCCTCCCAAAGTGCTGGGGTTACAGCCGTGTGCCACTGTGTCTGGCCCTTTTCTTTT
CATAGGAGAAGGGTTGTTGACTCCAGGAAACGTCACCTGGAACCAAGAATGTGAACTCA
AGGACCCCCGCTGTTGGCAGCTGCATTTACTTGACTCCTGTTCACTGTTTCTTAGCCTT
GTCCTTTCTCTCCTGCCAGTTCTAGGGGACACTGCTTCTCCTGGTTGACCTC

Sequence 581

CCGGGCAGGTACCCTAAAACCTAAAGTATAATAAAAAAAGATTATTTCTATACTTCAA
AATCAACAAGATTTGATTGCATTTAAATTTTTCTGTCCATTTGTTCTTCTATGTAATACT
TTAAAAATAATTGGCATAAAAAATTCAATCAATTCATAAAAGTCCAAAGCAAAAAAACAA
ATCTACTGACATCTCTTGAGGAAGAAATGATCAGGATTGACATTAATGAACCCTCTCACA
GAGACCACTACACACACACACAAAAAGAAGGATGGGTGAATGGATGCAGAGAGAATTT
AATAAGACTGAAATGATGCCATACATGCTTTTAAAAAATAAAAAAGTATTAAATTTTAA

Sequence 582

CCGGGCAGGTACTTATACTAGAAGATGCTCCAAGGTTTCAGAAAGGAATTAATTACTTTC
AATTTGCACAATTTAGAACAAATATCTGGCTTTTCCCTAAGCTTAATGATTTTCCATTTT
ACACAACTAAAATATAATAGCATTATTTTATAATCAAGTTTAACTGATGGTCTATGATAG
TAGAGCGATTTAGTATTTTGACAAAAATCTTATGAGACATGAAGTCATTCAATTTGCCGG
ACGCGTGGGTGCACTCAAGCTAGACCT

Sequence 583

AGGTGCGCCATCACACCCGGCTAATTTTTTTTGTATTTTATAGTAGAGACAGGGTTTCACCA
TGCTAGCCAGGATGGTCTCAATCTCCTGATCTCGTGATCCGCCCACCTCAGCCTTCCAAA
GTGCTGGGATTAAAGGCGTGAGCCACCACGCCTGGCCAGGAGATTCTTAATTATTTCTGA
ACTCTATCAGTTTTGTATTAGGACATCTTATTTAATATTATCAAAAGATAGTTCTCTTA
GAGGCATAAATCAGTCAATCAACAAACAATAGGCAATCACGGACGCGTGGGTGCAAGACC
TGCCCG

Sequence 584

AGGTGTACAAGCTTCGACCCACGCGTCCGCATTTTTCTGGTGTTCCCTCTTACGTGCACA
CCCCTTGCTCCCCTTTGGGTTGACTTATAATCTGACTTTTGTGACAGATGTTAGGAGGTG
GAGCAAAGGAATTTAGACCAATCAGTTAAGAGACTGCTGTGGGGTAAGAAAAAAATTA
GCCTCTTAAATTAATCTTATCAAAGGAAAAAAGTTGGAAGCACATGATAGTATAACCA
GAAACATGACACAGAAGAATTAAGGGAAGAACCTGCCCCG

Sequence 585

CCGGGCAGGTGGAAGGTGGGTGGGGAGAGGGAGGCTTATTTGTTGCTGCAGTGTAACCTA
AGTGAAACCTAATTCATATGACTCAAACCTAAGGTATATTTGGTTAGATCTAGGTGAGTTC
TACTTTAGAGGAAATCCTGGTAACCTGTTGTTTGTGTAAGTTATAGCTGTAATTAATTT
TCCCTGTATTCAAAGCCCCCAAACCTGCATTCAGATACTATGCATTTAGACTTCCTTAG
GCAAAGTCAAGGCAACAAGCTGATGATTCTAAGCTATTATTCAAGGAGTATCTACCATCA
TAAAGGTGGTTTAGTCATATAGATAATATCAATCAATAAT

Sequence 586

CCGGGCAGGTCTTCGACCCACGCGTCCGTGATTGCCTATTGTTTGTGATTGACTGATTT
ATGCCTCTAAGAGGAACCTATCTTTTGATAATATTAATAAGATGTCCTAATACAAAACCTG

TABLE 1

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ATAGAGTTCAGAAATAATTAAGAATCTCCTGGCCAGGCGTGGTGGCTCACGCCTTTAATC
CCAGCACTTTGGAAGGCTGAGGTGGGCGGATCACGAGATCAGGAGATTGAGACCATCCTG
GCTAGCATGGTGAAACCCTGTCTCTACTAAAAATACAAAAAAATTAGCCGGGTGTGATG
GCGACCT

Sequence 587

AGGTACATTGTTAGACAAGTGTTTATCACTAATCTGGAATACATCATCTTCAATAAGGCT
CTTGTTTTCTCCAAGCTGCACTGCTCACACTGCTCAGTTTTCTGTTAAGCAACCTGCTC
ATTATAGTAGAGCACCAAGGTGATCTGTTCTTCTGTTCTTCAGAAAGTTCACATTTCTTG
TTGCAACAGGGCTACATGATTTTAAGATTCTCAAAGTCAATACGAATTAACATTATTTT
CCATTTCCATTCTGTATATCTTCACATTCCATAAATATAATACTCATGTATACGTTAAAT
TTCCTTATAAGTTCAACACATTGAAAGCTAAAATAAAGACTTCCTACTAG

Sequence 588

CCGGGCAGGTACACAAACCAGATGTATGCAATGATGCCAAAAGTCATCTCAAAATTCCAA
GCTGACCTAGTGCAACACATTTACACTTGGATAAACTATCACCTTGAAGATTTACTTTGT
ATACTTCAAAAGATCTGGTCATGAAATTTTAGCTAATACATAAAGTGCCGAATTGAAAT
CCAGAATACAATAGCTATGAAGGGCCGCTAGAGTGCAGATAACCAACCCATTCTACCTAA
CTCAGGTTGAGATTGCTTTAGAACCTATCATTGGCTTTAAAATGGTCCACAAAAAACAC
CTCATGGTCACACTTAAATAGTTTGCATCCACACTA

Sequence 589

CCGGGCAGGTGACTTGGCTGTGAAAAGTGCTAAAACAGATAAAAGACTATACTGACAGGC
AAATGGAGCCTGTTATGACACTGACATTGAAGGTGAAAGGAGAATCCAGTTCACATTAGC
CAGGGTCTCAGGGACCAGGTTTTGAGGCAGTATTTCTGCCTCTTGAGGACAGGGCAGAGC
AGGTGGGTAAAAAGCAAAGAGACCAGGGAAGGGGGACTAAAAGTAAGGGAAACAGCATCT
GAGGAAAGGCTCCTCTGACTGGATTTTCACAAACATTATTTATTAACCTCACTAAACAAG
GATAATGGGACAAAACAGGGGCAAGCTGGAAAACAGCAGGGGTATTTGGCAG

Sequence 590

CCGGGCAGGTACATCACCCCTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAAA
GGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCC
GTGTTGGTCACTGNCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGTTGGAGCAA
GTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTG
GTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGC
ACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCCCAGGAC

Sequence 591

CCGGGCAGGTGGAAGGTGGGTGGGGAGAGGGAGGCTTATTTGTTGCTGCAGTGTAACCTA
AGTGAAACCTAATTCATATGACTCAAACCTAAGGTATATTTGGTTAGATCTAGGTGAGTTC
TACTTTAGAGGAAATCCTGGTAACTGTTGTTTGTGTAAGTTATAGCTGTAATTAATTT
TCCCTGTATTCAAAGCCCCCAAACCCTGCATTTCAGATACTATGCATTTAGACTTCCTTAG
GCAAAGTCAAGGCAACAAGCTGATGATTCTAAGCTATTATTCAAGGAGTATCTACCATCA
TAAAGGTGGTTTAG

Sequence 592

AGGTCAAGCTTCGACCCACGCGTCCGCAGCCTGGGTGATAGTGAGATCCTGTCTTAAAT
GAAGAAAGAAAGAAAAAAGAATGAGAAGGAAGGATATTAATTGAAGTAAGAGCACATTT
GATTACAAAATAGAAGAGGAGTAAGTGAGAACTAAACGGGGAATACAGATAGCAGAGATT
AAATAGGCTATAAGAAAAAAGGGATGATAATAAGACCATGGTAGTACCTGCCCG

Sequence 593

AGGGCCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGTTTA
CAATATGGTGACAACAGATAACTGTAAAACTTCTTTTTCAAATAGAACCAGCAGGAGCA
TGCATGGAACACATATACCAAACATCTTTCTGATAACATTAAACATTTTAAAGATGTT
AAATGTTCTTTTCATTGNGGTGCTTCAGATTCTGATTCTAGAACTTGTGTGTGTGGAAC
CTGTGTGCTAACTATTCTGTTGGAATTTACCAGCAAAGAATTATCTAAGAATTTTCAAAC
TAAATGATGGGGGAAGGAACATAACATTTTTGCAGNCCCTGGAAATGTAAATGTTGTACC

TABLE 1

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Sequence 594

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAATAAATAGC
ATTCCCACGGTGACCACAAGTCTTGGAATCAGTTCAGGTGTCGTCGTGGCCGTTGACAC
CGCTGCCTTCTGACGGTAAATGTATTGTAGAATTCATGTTGTTATCAGGCTTCAGTTTCC
TCATCTCTAAAATGAGAGGATTGGATAAGTTAGTAGTTTTCTAATTTTTACTTTTAATCAG
TGGCATCTCCCATTTATTTTCATTTGAAATAAACTTTTGAATTTATCTTCTACCTAA
ATAACATATTTTGTATGTTTCAAGATGAAGCTCACACTGAGTTGGAAAAAGGAAAA
AGCAAAGGATCAAAGCTG

Sequence 595

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGCCAAAGCCTT
AACTTAGATTGTTACTTATGTTTCTAAATCTGTGGAAGCACATTTCTTTTCTTCTTCTT
TTCTTTTACTGTTAATATCCTTATTCTCTATTTTACCAGTGGAGAATGTTTAGTATTAAT
TTCCATTTAGCTCAAGATTCAAGAAATGCANAGTGCTATTTTATCAAATTTCTGAAAGC
CTACTGTCTTCTGCTTTGGAAGTCCCAACAGCTCTTAATTTCTTAAGCCCCACTTT
CCTCATCAGCAAGTTGGTGTGGCANTGGATCATANTAGGTTGCTGGGAGGATGAAGTGA

Sequence 596

ATGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGA
TTATTCTCTCCATTTAGGCTATAAATCTTTCAGTGTAGGGTGTTTCTAATGTCATATTCT
TCCAAAAAAAAAAAAAAAAAAAAAGT

Sequence 597

CCGGGCAGGTCTTCGACCCACGCGTCCGGCTCTCCAGTTTATACATGAAGAACTTTCCG
AAAGTCTTGCAGCTTGTGGAGAGCAGAGCTGGAGAGCAGGCTAGTCTGATTTTAGAAGGG
AGTTAACCATTACATAACCTGCAGGTGGCTTCTCCCATACCTGCCGTGGGATAATATGG
CTCACTTTTACTTCATTTACAATATTTAATAAGTGCGATTTTAGACTTGAGAAGAGAAT
ATTTTCTGCTAAAATTATCCCCACTAGAGATAATCACCAGTGAATTAATACTGCAGCA
ACGGAACCAGTCAGCTTTTTTGGTAATCATTCCCTTCT

Sequence 598

CCGGGCAGGTCTTCNACCCACGCGTCCGGCTCTCCAGTTTATACATGAAGAACTTTCCG
AAAGTCTTGCAGCTTGTGGAGAGCAGAGCTGGAGAGCAGGCTAGTCTGATTTTAGAAGGG
AGTTAACCATTACATAACCTGCAGGTGGCTTCTCCCATACCTGCCGTAGGGATAATATG
GCTCACTTTTACTNCAATTTACAATATTCAATAAAGTGCGATTTTAGACTTGAGANGAGA
ATATTTCTNCTNAAATTTATCCCNCTAGAGATAATNNACCAGTGAATTNATACTGC
ACNNACGGAAACCAGTCA

Sequence 599

AGGTGCTTCGACCCACGCGTCCGGTATTTCTCTTAAAGTTAATTTTGATAGATATTTATC
TAGATGCTTTCTTTTTTCCCTTGCCATAATAGCTGGCTTGTAGAGAGAGTTATGTTTGAA
AAGGCTTGCCTTTTTTCCGTCGCTCTG

Sequence 600

AGGTCAAGCTTCGACCCACGCGTCCGTGATGCTGGCTTCCCGGTCAAAGCTGAGGAGTTT
TGTGGTGCTTCTCAGGAACCTTCTGTACGGAAACCATTCACCCAAAATTGCAAGACC
TTTCATAGAGACTTTCTCAGGCCCTCAAGAGTATTTGAGTATCTGGAGGAGGATGCCCA
GAAGTCCNCACAGGAGGGGGTGCTTGGGACCACACACTGATGCTCTTGNCATTCAGACTC
TGAGAAACATGCCGCGTGATGAANAAACCATCCCAATTANANGAAGCTAGCTGNNTTNC
TTGNAGCAGCTTTACCCCAATT

Sequence 601

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGTGATAACTTCTCCTAAGTGCCAGGCATT
GTATTACATGCTGGGAGCACAAAGATGAATAATAACAATAGGTTACAGAAAAGATGAAT
TGATTGAGAGAAAAAGAACCTCCAGGAGCCCTCAGCGTAGTAGGGGGTTGGTGTGGAG
GGTGGAGGAATGAAAAAGGNCCTGAAATGCANGCAGAGAAATGATGAAACAATTCNNGG
GCTGCGGNGAGGTTANATGAATATCTTTACAGCAGCCTNGAAGACTGATCANGTTACTAT

TABLE 1
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ACCCTCTCTTCTGTCCACGTGCATTNA

Sequence 602

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCATTTATTAAGGCTTGTATATGT
TCAAGATCCAGTGAAGACTGTCTTGGGCGTGTATAATTGATCTTAACCACAAGGCTGAGA
AGTTATGTGCAGGGCTTATGATGCTACTTCCAAAGTATTAATCCTCCAGAGAAGCCTGT
AGTGTGGGATGCAAACTATTTAAGTGTGACCATGAGGTGTTTTTTGTGGACCATTTTA
AAGCCAATGATAGGTTCTAAAGCAATCTCAACCTGAGTTAGGTAGAATGGGTTGGTTATC
TGCACCTAGCGGCCCTTCATAGCTATTGTATTCTGGATTTC AATTCGGCACTTTATGTA
T

Sequence 603

ATTGGAGCCTCCCCGCGGTGGCGGCCGAGGTAGCTTGAGTCGACCCACGCGTCCGTTTCAG
ATCCGTTTTAGAAAACGTGAGTCTCTAGCTCAGGAGATTTCCACAACGTCTTAGTAACC
TGATCTTATTCTCATGTTAACCTTGGCAGTGGGAAGTTCTTCCTGGTATCCTGCCTAAT
TACTGGAGTTGGCATTATGCCATTTCCCCCTAAGGCGTGGCTCTTGGACCAGTATCAC
CTGAGAATTTGATAGACATAGACCCAGAGTTACTGAGGGCAGGTGCTCTGTTTTGGGGAC
CAGCAATCGGTGCTTTAGCAAGTNCCTTGGGTGATAGGGGTTNTGGAACTACTGCTCTA
AAGCATNATCTGTTTTTGAC

Sequence 604

GGTACCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTGAGGAAAAAGAAGGTC
CTGAAAGCGTNTAGACAAAAAAGACTACTTGTAAAGTTGCAAGAATCAGAATGGCATTGG
ACTTCTCAGCTTTCTCATTAGAAAGTTTAAAGATCTGAAGCAATCTTTAACTCGTGAGGA
AAATTAAGTCTAATAAATANTTTTCTTCTAGCCCAAACAATCAAATGTGAAGCTAGAAT
AAGCATTTTCAGGTAAAAAAAAAAAAAAAAAAGTGCGGC

Sequence 605

CCGGGCAGGTACANNTTGTGATGATTTTGGCAGCAATTACAGAACCAAGGCCATTCA
AGTTGTGGAGATTATACTAGCAGGTGAACCTCGTAAAGAGAAGATTCTGGAATGCCTATAT
CTGAAATCAGAATCCTAGTAGTTTGTAGTTTGCCTCTTCTAGAAAGTTCAAGAGACTCAA
GTCATAGGCTACAGATGTACCTN

Sequence 606

AGGTCTTCGACCCACGCGTCCGCAACTGTTGATCTAACTTTTCCACTTGAATGTCTAATT
GGCAAATCAAACCTAACATGTTCCAAACGAGTTCTGAAGCACCCCTCTGCCAAATCTAC
GTCTCCACAGCCTTCCCTATTTCTCTACCTGGTACCTGCCCGGGCGGCCGCTCGACCTG
CCCG

Sequence 607

AGGTCTTGAGTCGACCCACGCGTCCGGAGATGTATACGCCACTATAGGAACTATAAGAAA
AAGTCAAATGGAAATCTTATAAATAAAAAACCACAGTCACTATAATGAGGAAATACTTTGA
TAAGGTGTCAGTGAACCTAAAAATCAATCAATAGAACTACTCAAACATAAACTCAAAGA
GAAAAAAAAAGATGGGAGATAATTATTTTTTAAGAATTGGTCATCAAATGTAGCAACAA
GTTTGCCTTATCCTATATCATTTGAATTTTCAAAAAATAAGCTCATTATACAATCTTTAA
AATATTTTGAATAGAACTGTTTCATGTGTTATTTGT

Sequence 608

AGGTCAAGCTTCGACCCACGCGTCCGGGGAACCTTGTTCAGGTTCTTTTTAGGCAACCC
AAGCCAAGACAACAAAGTAAGATAGAGCCCCAAATGTGGTCGTATAAGGTTTTTCAAAGA
AAGTAACACTTGAGTTAGGTCTTAAAGTTTACCTAAGAACTGCCAGGTGGACAAGAA
GAAAGGGTGTTCCAAGTAGAAATAATAGCATGGACAAAGGCAATGTAGCAGGAAAAGTCT
TCGTAAATTCAAGGAATTTCAAGTGTTCACGATGGAAGGAGCAATAGAGTCATTTACTT
GCGGTGGCAGGGGATGTTGGAATGTAACAAGAGTGAGATAC

Sequence 609

AGGTCAAGCTTCGACCCACGCGTCCGTGATGCTGGCTTCCCGGTCAAAGCTGAGGAGTTT
GTGGTACTTTCTCAGGAACCTTCTGTACGGAAACCATTTGCACCCAAAATTGCAAGACCT
TTCATAGAGACTTCTCAGGCCCTCAAGAGTATTGAGTATCTGGAGGAGGATGCCCAAG

TABLE 1

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AGTCCGCACAGGAGGGGGTGCTGGGACCACACACTGATGCTCTGTCATCAGACTCTGAGA
ACATGCCGTGTGATGAAGAACCATCCCAATTAGAGGAGCTAGCTGACTTCATGGAGCAGC
TTACACCAATTGAA

Sequence 610

ACTTTTTTTTTTTTTAGCTTGAGTCGACCCACGCGTCCGGGGATCTAGATCACGAGCG
GCCGGCCGCCCGGGCAGGTACGGAAGCCATGCACTTGCCTCTCCTTCAGAGCTGGGATTT
TTTTTCATTTTGCTGGCTGTGAGCACACACGCCCACAGGTGCCTAAGCCTCTTGTATG
TGTGTTTTGAACTGTGTCCTCTGAGTTCTGTGTCTGGGTGCATGCTCTCCTCTTAGCGTG
GGTCTCCTTCCCCTGTGTAGCACTTCACAATGTTAGGCATTTGTCTGTGATAGCAGCTGT
TCAGTAATTTCTACTT

Sequence 611

AGGTTTCGACCCACGCGTCCGGAATTTATCTGGCCAGGCATTGGTAGTTTACAGAAGTCT
ACCAGATGATTCTAATGTGTGGTCAAGACTGAGAACTATGTGTTTAATTGGGTTCAATTC
AAGAATACTGTAAAAATTTTATCTAAATACTAAATATCCATAAAAGAAACCTCGGTAATC
AGGCCAGGTTTTTGAGTTTTTCCAGATTAGCCCACTACAGGGGAAAGAGACTTTTCGCAC
TATATCCCAGAGTCTCTGCTCCTGCTTCCAGCCTCAATGCACTGGGCCTTTCTGCTGCCT
TGGAGCACTTAGAGGGATTACAGGAGGAGTGATCTGTGGAGTT

Sequence 612

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCAGCGCCCGGGCAGGTACATACAGCCTGAAG
TTAACCTTTCTATGTTAAATGAAAAAATTTGTCATTTCATCAGGTCACAGAAACCAAAAA
CTAAACAATGCAAAAAAATAAATCTAAAAATAAAAGAATTTTATATTTGAAGTTATTC
TGGATATTCGCACCATTTTAGCTTCTGAAAAAATGCAACTATGAAATGAAGACCTCATA
TATTTTCATTTATCAATATAATGTTAAAAGTTTCATTCCACCGGGTGTGGNGGCTCACAC
TTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCATGAGGTCAGGAGATCGAGA
GTATCCTGGCTAACATGGTGAAACCCCGTCTCTCTAAAAAATTCNNNAANAANAAAAA
AAGGAA

Sequence 613

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTGTAGTTTTCTTAGCCATTTTTTC
AATAGTCTACACAGTGTTTTATGTTTCCTTTTATTTGTGTATAGTGAGGTAGAGGGGAGGT
TTTTTTATTCAAATAGAAGAAGCTAAACTCAAATGCAATGTCAGATCTCANAATAAACT
GACCCAAATTTCTGAAACCCAATAAACACATTTTCATTTGTAATATTCCTTATTATAGCT
CTATGAAAAAGTAATTTTGACTTTTCGATCTTAAAGAGAGTTTTAAAAATACACAGTAAA
TTGAAAGAAAACTACTACATTTAAACAGTATTTTCTGAAACATAGAATGAAATGC
AAGTATTTTGTGCATGGCAGCTGTTTTTAAGGAACCAATGTTATATATGGNGAATTTTGT
GGAAGACTATGTCTCTTAAATATTTCTTATAAAATANCATGGCTTTTTAATAGCTGGGA
ATCTGANGNNGGATTTCCCATGAAGACCTTAAATGGCTNNGCAGGAATTATAAAAAAG

Sequence 614

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGCCTGTAATCCCAGC
TGTTGGGGAAGCTGAGATGGGAGGATTGCTTGAGCCTGGGATACTGATATTGAGGCTGCA
GCGGGCCGAGAATACCACTGCACTCCAGCCTGGATGACAGAGTGAGACACTGGCTCAAAA
AAAAAAGAAAAAGGAAGAAAAAAGTTTAAATCAATGAATGTTCTCATTTCTAATGAAAT
AATGAAACATTATTGGGAGAGTTATAGTCATAATCATCTTACTGCACTATCAATTAATAA
ATACATCATTTTTTAGAGCACAATATATACCATAAAGAATTATTCAAATAGTCTAAATAT
TACGATCAAATTTTTAATAGACTTTGTTACTTAAACTAAACTGTATTAGTCTGTATTAG
TCAGCTCAAGTTGGGATTACACCTGTAATCCCAACACCTAGGGGGGC

Sequence 615

CCGCGGTGGCGGCCGAGGTACACTGTGTAAGTGGTCAAAGATAGACATGGTTTTATTTAC
AAGGAAATTTGCTGAAGTGTAATTATAACACGAAGAGATGGGAGGGAGGGGTAAACACC
TAAATGTCTAACAACAGAGAATGGTTCTCTGTTGATACAAAATTATGATACATCAAAAA
GAACAACAATCAAATTTCTCTGAGAATCCCATTACAGTTAAAGGAGCTCCCAGCCAGGT
GCGGTGGCTCACGCTGTAATCACAGCACTTTGGGAGGCCGAGTCGGGTGGATCACGAAG

TABLE 1

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TCAAGAGATTGAGACTACCCTGGCCAACACTGTAAAACCCCGTNTCTACTAAAATACAAA
AATTAGCTGGGCCGTGG

Sequence 616

TTAGGGCGAATTGGAGCTCACCGCGGTGGCGGCCGAGGTAAGTGAATAACTGCCAATGCCA
TCTGCCTGTGGCCTTCTCAAGTTTGTCTGCACCTGTGGTTATCCTGACTTCAAACCCGGG
GAGACAGAGGCTAGAAGAGGCAGACAGCTCTTGTGTATTCTCCTGTCCAGTGCAAAGAAC
ATCTGGAACCTCTGAGCCCTAACCTTAAATGCAAGACCTNATCTGCAGGTGTTCCCTNATCC
TTTTAGCCCCTCAGTGATGTAAGCAACAAACGTCACCCANCTCCTGGGGCACACTTNACT
CCCAGATGAGCTTGTCTGGATTGTCAGGGAGCCTGGCTCCC

Sequence 617

TAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCGGGGCAGGTACATCACCTGTCTGA
GGGACATCCAGGACAAGGTCAACACACTCTACAAAGGCAGTCAACTACATGACACATTCC
GCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGT
TCTCCTCCAATTTGGACCCAGCCTGGTGGAGCAAGTCTTCTAGATAAGACCCTGAATG
CCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGG
AGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTNTACCTGAATTTCA
CCATCACCAACCTACCATATTTCCAGGACAAAGCCCAGCCAGGCACCAACCAATTACCAGA
GGAACAAAAGGAATATTGAGGATGCGCTCAACCAACTCTTCCGAAACAGC

Sequence 618

GCCGGGCAGGTACAGATGGGGTTNCACCGTGTTAGCCAGGATGGTCTCGANTTCCTGACC
TCATNANGCATCCANCTCGGCCTCCCAAANTGCTGGAAATTACAAGGGCGTTGAGCCAC
CCGCACCTGGGCCAGAATCTTACATATTTCTTAAACATCATTAAATATATATTGATTTT
TACTTTTTTTTTGAATAGGGGTCTTGCTATGTTGCCAGGCTTGGTTTTGAACCTCCTGG
CCTTNANGAGATCCTCCCGCTCTCAAACCTCTCAAAGCAATGGGA

Sequence 619

AGGTACCCCATTTTATGCCATAAGTCAGGTTTCTCCCTCAATAGCCCTTTGGAACCTCTCA
AGGTCCAGAGTGGCATCAAACCAACTGACACATGAGTTGATACATCATGTGCTGCCAACA
GAGAAATTAGTCTGTGCCAAACTCAGCACAATCCTGCAGTTCAAACCAGAATTTCAAAAA

Sequence 620

ACCAAGATTTGAATCATGCTTTCAAAGCTAATGTGAAGTTAGACATATTTGGTTTCATA
ATCACAGAATTTAAAAACACCAGGTCTGCAATATTAGAAATCACCATTAAACGCTCTCT
TGACACATACAATCAATTTCACTTTAGATCGCTGATTTTCTTAAACACTGATTTAGTTAT
TTCTGAATACTGCTAGAAAATTCAAATCTACAATTAAT

Sequence 621

AGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCAACACACTCTACAAAGGCAGT
CAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTG
GTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGGTGGAGCAAGTNTTT
CTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGAC
ATCCATGTGACAGAAATGGAGTCATNAGTTTATCAACCAACAAGCAGCTCCAGCACCCAG
CACTTCTACCTGAATTTCAACATCACCAACCTACCATATTTCCAGGACAAAAGCCCAGCC
AGGCACCACCAATTACCAGAGGAACAAAAGGAAT

Sequence 622

NCCGGGCAGGTACTGGATGACAGCAAGTGCACACATCAAGAGAAAGTTACCATTCAGAGG
TGCAGTGAGTTCCCTTGTCCACAGNGGAAATCTGGAGACTGGTCAGAGGTAAGATGGGAG
GGCTGTTATTTCCCTAGGTCTCTCTTACATTCTAGTTCTGGTGTCTCTATCTGTTTA
AGACAAACCTTGNACACCTTTCTCCACCCCTCCCTTTCTCCCTTGTCTCCCTTGAGAA
AACAACCTNCAAGTTCTCTGCCTGCACCATGACTGTCGATACGCGGGGGCAGTTCGGCGGTC
CCGCGGGTCTGTCTCTTGCTTCA

Sequence 623

AGGTACAAGCTGTGCACTGCAAGGTAACCACGTGGCCAGAGGCACATCCCTCCCTCACAT

TABLE 1
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ATACTGAGTGGTGTAATGCAGTCACCTTGTCATCTGGCAAGAGGTGATCGATGGACACAA
ACTCCTCCCGGAACTGCCCCCTCCAGCGAGCTCACTCTGAGGTTATCTGAACTCACATAGC
TTGGGAAACCCAGCTGGGCACGGGCAACATTTGCGTAGTGACCCTTCCAGTCATCGGAGC
ACATGGTCTTCCACGAAGCAGCTGTGAACACCTGGAGCACGGCATTCTGACCACTCACCC
GGACACAGCGGTACCTGCCCCG

Sequence 624

CGGGCAGGTACTTTGCAAGACACGCCTGGCTACGAACAACATGGGACAATGGGCAGCCTC
GCTGCACTGNACAGAGGAAAGGAAAGAGGCCTTGACGCCACTGCCTGGGAAGGAGCAGCA
CATTCTGCATTAACCAGGCATGCCTCACTCACTGCAATCCCCAAACAAGCCCAACTCTCC
GTGTTGATTATTCTTACCATACTCCACCAGAAAGCAGCATGATTTTCTGTCCTCAAATAC
TTCAGATTCCAAGAGAACTGCACCTTCTAGAGTCTCTACTGATAACCTCAGNCACTTACC
CACTTGAAGCATNAGCACACACTTAAAAAGGAAA

Sequence 625

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATATTCTTCCAACCTTTCT
TCTGTGCATAATCATCTAGGTGTGGTGCTTACATTTTCTTTTGGCAGTGTTATCTTAGTA
TCTTCCAGCATGGTTTTCTCACCTGATACTGTAACCATACTTCCATATCCTCAAATGTGT
TGTTTTCTAAATAACTTTTTTTTTCTTTTTTAGAGACGGAGTCTCACTTGGCCAGGTG
CGGTGGTTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCACGAGGT
CAGGAGTTCGATGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCAGGTGTGGTGGC
GCACGCCTGTGATCCCAGCTACTCGGGAGGCTGACGCAGGAGAATCTCTTGAACCTTGGGA
GGTGGAGGTGCGAGTGAGCCGTGATCGCGCCGCTGCACTGCAGCCTGGGTGACAGAGTGA
GACTCTGTCTCAAAAAAAAAAAAAA

Sequence 626

AGGTACGCGGGACATACTCCCTAGGTGTCTGTGAGGATGGTGGAGGGGATTTTCTCCATG
CCGGGAGGCTTCCTGGAGCAGGTGCTGCCTCTCGTGACTCTTGAAAGATGCTTGTGAATA
AAGCATACTGGGAGCTGAGCTGCTGTTTAGTAATTAATAATCCTTTCCATTGTTTAGAGC
TCAGCACCTTTGTGCATTATATTACGCATTCATTTTCGTATCATTGTTGAATTTCTCAC
TTCTGCTACTGCAATGTATGTCTACAGCTGACAAGTCTTCCTTGGGAGCCCTACGTAGCT
CTTTTTTTCTTTCTTTCTTTTTTTTTTGGAGACGGAATCTTGCTCTGTCAACCCAGGCT
GGAGTGCAGTGGCGCAATCTCGGCTCACTGTAAGCTCCACCTCCCGGGTTCACGCCATTC
TCCTGCCTCAGCCTCTTGAGTAGCTGGGACTACAGGGTGCCACCACCACGCCTGGNTAC
TTTTTTTTGGTAT

Sequence 627

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTCTGCCATGAAGGT
TCTGGGGTGGAGAGGGAAGCAATGTATATCCTACCCATGGTGATTGGTCCGATGGAAGTC
ACATCCTGATGGGAAAAAAGGACTGAGCCAGAGTGGAAGTGTCTAAACCAAATGGGATAA
ACAAGCATGGCATGGAGCCAAAACAATGGCTAAGTCAGAGGTCCTAATGCAGAAGGCTG
GACAACTAGGATGGTGGGGAAGACATGAGCTTGAAGGACTTCCCAAGATAAAGCAGAAC
TAACCAGAAGAGCCTGTTATAGATTATATTGGGGGAGTTTGGGGGGTTTGTGCAGGGTG
CATCAAAAAGCACTCGCATGGAATAAACATATCTTGACAGGAACATATGACAGGTAATT
GAATAGTTTGATTTGAACTATGTAAAGACATGATCCTGATGGTAGAAGGATGGTACCTGC
CCG

Sequence 628

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTGGGACCGAGTCTCACTCTGTGCGCCAGGCTAGAGTGCCATGGCGCAATCTTGGTCACT
GCAACCTCCACCTGCTGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGA
TTACAGGCCCTNACCACCACGCCAGCTAATTTTTGTATTTAGNAAAGATGGGGTTTCAC
TGTGTTGGCCAGGCTGGTCTCGATCTTTGACCTTGAACTTTNACATAAACTTTACAT
TTCCATGACAAAGTTTTAGCAGTAACTTCCAAATTGGTCTTATTCAACTCCAACATTAAA
CTTTGTATGTACCTGCCCC

Sequence 629

TABLE 1

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CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGATCC
AGGATGTGATGGGATCTTAGGGCTTGGCTGGAAGGTTTCTCCAGTCAGCCATCTAGCAGA
GCTGCAGATCTGGGCTGGGCTGTTGGCTAAAGTGCTCTTCACAGACACCTCATTGGGCTC
TTCCTTCAGCTTCTTCACTTATTTCTTACTCAGTCACTACTCAGCTCCTTGTCCATGTGT
CCTTGAAGCCATCCTAGGTCTTATTCTGATTCTGAATTCTTCAGTCACCCATAAGCTTCT
CCTTACCCCGGGAGTCAGTGGGTGTGTGTTCCAGGTGGACTTAACCATTTCTTCTCCTTT
ATGATCCTTTCCCTTGGGTGGACAAGTGTGATTTGGTTGTAAGGCCATTTTCAAGTTGC
CTATACATTGATAAAAGAAATCCCACTAACGGAAGTAGACTGCATGCCAAATTTCAAGTGT
CTTCTCCAGGGGCCAAGGTTGGACCCANAAGTGCATGGG

Sequence 630

CCCCGCGGTGGCGGCCGCCCGGGCAGGTACATTATTGCTTCCTGGGAGAGCTGACCATGA
GTCAATTGGCCCAATAANTTATNAAATGAAAACCGGCCATCATCTGCATCTTATGAGT
GCACGTCATCAGAGATGTCCACTCCAGTTACAAGAAAGTCCTGAGGGCTTTCTTGGAGCC
TGANGGGCGCTGGAGGTGAGACCTGGAGGTGAGCAGGAGTTAACTAGGATGAGGGACNGG
CGCAGCATACAGGAAAAGCTGCCTGGGGGAGAAAGGACCAACAGCAAAGACTGAGAAAAA
AATGCTGTTGTGACCAGGGTTCAGAGCGGGCATGGAGGACTGAGGGTTTCAGAGCGGGCAT
GGAGGACTGAGGGTTCAGAGCGGGCATGGAGGACTGAGGGTTCAGAGCGGGCATGGAGG

Sequence 631

CCGGGCAGGGTACTAAGGACAAAAAGACATTTATTCTCTTTGACCCTTGCTGCCAGNACA
GAAAATGACTTCACCCAAGGACACAGCACTTGCGGGTGGCCTTCTCCACCTCCAGCTATT
GCTTGGTTTCAGGTGACCACTCCCTTTCTCTTCTCAGGCCTATGGGTGGTAACAAGCTCC
CATCCACTGCTAGTCTTAGACATCTTACTTTCTTGATTGATNCCCTTGACTCTGCCCA
CATCTTTTAAAATATCCCATATTAACCTTTTACACCCCTTGAATGTGTCCTGCTTCCT
GCTGGGACCATGACTAGTCTCTTCTAGTNGGAATCCATATCACCTTCTGTGATGTAGTCT
CCAAGTCAGGCAGNCTCATTTCAACTACAGNCTTTCTTTATGCTTCTCTTTTCTTTCT
GGACTCTTACCTTTCTTTTATTTCTTACTCAGCAACAGTGTCTGCCCATTAATAATGCACC
TTTGCGGNGGNGGTTNGGGTATCTTATCTCTTATTCTTCTTCTTCTTCTTCTTCTTCT
ACTGGCATTGCATGGGAATTTGGTT

Sequence 632

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGACATACTCCC
TAGGTGTCTGTGAGGATGGTGGAGGGGATTTTCTCCATGCCGGGAGGCTTCTGGAGCAG
GTGCTGCCTCTCGTGA CTCTTGAAAGATGCTTGTGAATAAAGCATACTGGGAGCTGAGCT
GCTGTTTAGTAATTAATAATCCTTTCCATTGTTTAGAGCTCAGCACCTTTGTGCATTCAT
ATTACGCATTCAATTTTCGTATCATTGTTGAATTTCTCACTTCTGCTACTGCAATGTATGT
CTACAGCTGACAAGTCTTCTTGGGAGCCCTACGTAGCTCTTTTTTTCTTTTCTTTCTT
TTTTTTTTGAGACGGAATCTTGCTCTGTCAACAGGCTGGAGTGCAGTGGCGCAATCTC
GGCTCACTGTAAGCTCCACCTCCCGGGTTCACGCCATTCTCCTGCCTCAGCCTCTTGAGT
AGCTGGGACTACAGGTGCCACCACCACCCCTGGCTACTTTTTT

Sequence 633

GCCGAGGTACTTCCCTGAGCAGTCGAAGTGGATGCCAGACCAATGGCCAGNGCTAATAT
NCAANGCAATGATCCCAATGACGATGATTGGAATAAAGTCAATGGCAGCAGTGACAGGA
TCTGTGCAGCAACAGCATCTGCATCTGGTGCAACAGGACTTATTTCAAATCATCAAGGC
CAAAAAGCGATCGGAATGAGAAGGGGGCTTCAACAGCAGGCGGATCATTTTCCCCCATGG
TGA CTATTTCAAGACCTCTGACATCCGGCTCCGCTCCACCTCTACCTCATAATTCCCGA
GTCCCAAAAATGTAGATGGCACCACGGAAGAGATAGTAGGCCACAGTGTTACTGGCTTCC
CATAAACACAGCCCTTTCTGGCTCACACGGGCATGACCTAATTAAGAACCCCCGCGTAC
CTGCCCCGGGCGGC

Sequence 634

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAAGTGA
AATCCCTAAGTCAAAGTGTGGCTTATAAGCAGAAATCCTGGTTAGTATTTCAAAGTTCTC
TTAGCGTTTTCTCCTGCGACTTAAAGACTTAAACAGTGAAAAGACATGGACGTAAGAC

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TCCAAACAAAATACATTTCTTTGAACTAAATAGCTCTTAAGTAAGAAAAATTTCTATA
GATCTTCAAATCATCCCCTAAGCAAAATATTCTCTAATTAAGTATTTCTGTATTTCCATC
TATGTTCTTCCCAGGCTTGGGGCTGTTGATCAGACCTATTTTAGGGGTAAAGTTTCTAGG
GGTCATAGAAGATACAGATTTTGACCTGCTTAATGTCAAGAGGTTGCACGGTTGATTTGT
CCAGTTGTGAATCTATGAATGAAGCTTTTGTCTAAATAAAACGATATTTCCCCTCTGGC
TGCTGTGAGCACCGGGAGACTTGTTTCGGCAGTGCCTGGGTGCTGGGGCAGGGCCCCG

Sequence 635

TGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGGGAGTAAATAAAAGGGTCG
GATTTTGTAGGATTCTAAGGAAGAGGCAGTGTGCTCTGTCCACAGGCTGCAAGGTGAGAA
CCTAAAAGAATGAGATATATTCCATTTTGAATGGCAATCAAAAAGAGGATCTCTCTGT
CAAGTCTTTACATTAATGCTGAGTAACAATCTCAAAAGCCTGCCATTCCCCTTTAGACA
CATGTGGCAAAGCAGAACTGAAGGAATGGCCAAGGGGCTTGAACAAGTAGAGAGACCGA
CAGTCTTTCAAATTTAGGGAACCCAGATACATTTTGGGGGAGCCACTGTTTTCCCAT
TTCTGAAAAGTTCTTGCAGGTATAAGAAATAGGAATAGAAATTGAATAGGTTCTGGAGC
CAGGGCTACAAAGGCCCCAGCTCTGATCTGTTAGACTGAAAACACACATCAGATGAAAT
TATATNCACAAAAAGGAGAGTCTTAAAAACAGCCATTTCCGTCCCT

Sequence 636

AAGAGCACGTATAGCATGGGGGAAAGAACCTAAATGTCTCTCTGTCCTGTGAGCTGGTGA
AAAACCCAGCATGAGAACGCAGTGTGAGGTGTGGGACTCCTTCTGCCCTGCAGTGGGTG
TTACGGGCGGTGTGCCCTGGCGAGCAAGCTTTGATTCTTGGTCTTTGAGCTCGTTTCAG
AGGCTGAGTCCCCACATCAGCTTTAGTTCTTGGACTTCCCTGTATTAAGCAAGAATTAGG
AGAATGGCTGTCCCTGCAGGCGCCTCCCGTAAATCCTGAGCTCTCTGGCGCAATCTGAAA
CTTCTCTTCTGTTTTCTTTGGCTGTATCAGCCGAACCAGGAGAGGCC

Sequence 637

CCGGGCAGGTACCAGGAGAGATCTGAGACANGGTATGAAGTAAAGATTTAAGATTGGAA
GTGGAGAGTGTGATGGACCAAGTGCCTTTCCGGATGGGTGACTTCTGGAATTCTTGTTAGGC
ACAGCGGAGGTTGGTCTGTGGGAAAGGAAGAATATTTCCGGGGTGAGGAGACTTCCGGG
TGTGGGCCGGGTGCCCTTTTAAATTTGGAATGGTGTATACAATAGGGAAAGGATGTTAAC
TTTGCAGCAGCGGGGATGGTGAATATAACCTGATAGGGACCCTTCCATTTTGTGGAAAG
GGGAGGAGGGGTGTGCTACCCAGACCCAGTCTCCTGGNTGTAAGGGTAAGAAAGTGAATT
GGGAAGAATCCTCAGG

Sequence 638

CCGGGCAGGTACCTGGACTCCTAAGCCTCAGGGATTTACTGAAACACCATTCTATTTTAT
AATAATCCTTAACCAAGAATTTTAAGGATCTTAAATTTTCTGTGGTTCTATTGTTATCT
GATATATAGATGATCTGCTGCCATATCCTAAGAGCAGATGAGGCCGGGTGTAGTGGCTC
ACGCCTGTAATCCCAGCACTTTGGGAGGCAGACGAAGGTGGATCACCTAAGGTCAGGAGT
TTGAGACCAGCCTGGCCAACATGGTGAACCCCATCTCTACTAAAAATACAAAAATTAGC
TGGGTGTGGTGGTGGGCACCTGTAATCCAGCTACTAGGAAGGATGAGGCAGGAGAATCA
CTTGAACCCAGGAGGCGGAGGTTGCAGTGAGCTGA

Sequence 639

AGGTACCACTTAACAAGGGTTCTCAGCTGTGNGGNCACTGGACCACTGGGATATGCTGAG
CTATTGCTTAAACACTGACTTAAATAAAACAAATATTTTAAATAATGAGAATGCTACTGT
AATTAGAAGGCAATCATTTCAAAGTCTANATGGAGGCCAGGGCGGTGGCTCATGCCTGT
AATCCCAGCACTTTGGGAGGCCGAGGTGGGTGGATCACATGAGGTGAGGAGTTTGAGACC
AGCCTGGCCAGTATGGTGAACCTCCATCTCTACTAAAAATACAAAAATTAGCCAGGCGTG
GTGGTGTGCACCTGTAATCCACTGAGGCAGGAGAATCACTTGAACCCGGGAAGTGGAGGT
TACAGTTGAGCTGAGATAGCACCCT

Sequence 640

AGGTACAAAGGTTCAAGTGGTGAGAAGAGGGAGCAAGGCCTTTGGAATAATGAACTCCAGT
TGTTCTCATAGGTGCAGCAGAAATAGCGAGAGGTGAGGATTATGGAGATTGGTAAGGCG
AGATCATCCAAGGGCCTTTTGCTTGGTAAGCCATTTTACTTTAATCTTGAGTGCCATAGG

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GATTCATTGACGGATTGATACAGGGAAATGAAATGATTTTTTTTTTTTTGGTTGGGGGA
GACAAGAGTCTTGCTCTGTTGCCAGGCTGGAGTGCAGTGGCACAACGTCGGTTCAGTGC
AGTGTCTGCCTCCCAGGTTCAAGCAATTCTCATGCCTCAGCCTACCTTGTAGCTGGGATT
ACAGGTGCACACCACCACACCCAGCTATTTTTTA

Sequence 641

AGGTACAAAGGTTCAGTGGTGAGAAGAGGGAGCANGGCCTTTGGAATAATGAACTCCAGT
TGTTCCCTCATAGGTGCAGCAGAAATAGCGAGAGGTCAGGATTATGGAGATTGGTAAGGCG
AGATCATCCAAGGGCCTTTTGCTTGGTAAGCCATTTTACTTTAATCTTGAGTGCCATAGG
GATTCATTGACGGATTGATACAGGGAAATGAAATGATTTTTTTTTTTTTGGTTGGGGGA
GACAAGAGTCTTGCTCTGTTGCCAGGCTGGAGTGCAGTGGCACAACGTCGGTTCAGTGC
AGTGTCTGCCTCCCAGGTTCAAGCAATTCTCATGCCTCAGCCTACCTTGTAGCTGGGATT
ACAGGTGCACACCACCACACCCAGCTATTTTTTATAT

Sequence 642

AGGTACCTCGTTTCTGAGGATCAANACCTNAGNGACCGNGTGTGTGTGTGTATTTGTG
TGTGTGTGAGTCCTATTTGGGCCCGCCTTTCAGCCCTGTCTTGCAGC

Sequence 643

AGGTACTTTCAATTTCTGTGGGATAAACTCCAGCTCCAGTTTCAGAACCCACTCTAATTG
GTTTAAGCCAGGAAAGGGAGAGGGACATGTTGCTGGGAGGCCCCCATCTGGGGCCTGAGC
TTGGAATCAAATCAGAGGAAGGCAACACATGTAAAGTGCTGAGAGTGAAGGATGAAGAG
AGCTAGGGCTTTGTGCCATCACTCGTGCTCTGGACATAAGTGGAGCTGGGATTCAGCATT
ACCTGCCCTGTACCTGCCC

Sequence 644

CGGGCAGGTAAGTCCAGGTGTGAGATGAAGGGGGCCTGGATGAAGCAGAGGGTGAGAG
ACAAGGAAGATTCTGAGGACCTTGTGGCTAGATGTGGGGGTTAAGTCAGGTTCAACTCCT
AGGCTGGATGAATTGGCAGATGGCACATGAACTACAAGAGAATGGAAGGCAGAACCTATT
TTGTGGGCAAAAATAAATTACATTTTGCAATACTGAATTGAGGGGCTTCTTGGAAGTCC
AGGTGTAGATGTCTTACAAAAATAGAATATTCTGGGCTGGGTGCAGTGGCTCACCCCTGT
AATCCCAGCACTTTGGGAGGCCAAGGTAGGGGGATCACCTGAGGTCAGGAGTTCGAGACC
AGCTG

Sequence 645

GGNCAACACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCAC
CAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGA
CCCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCT
GGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCA
ACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACC
ATATTCCCAGGACAAAGCCCAGCCAGGCACC

Sequence 646

CCGGGCAGGTACAGGGGCTTGGGGGCTTGGCCAGGCTCTTCTCCATCCATGCCACGGGGC
TGACAGCCACAGATCTGGAAGCTCAGGCCTAGGAGTGCAGGCTCCGTTAAGCCCTGTGTC
CAACATCCTGACTCCTAGGGGTGCCAAGATTTGAGTGGCCACTTTCACCTCTGGAGGAA
GTAATACCTAAGGCGCTGATAGAAATAGAACTTCCGCTGCCAGGCAAGGTGGCTCACACC
TGTAATCCTAGCACTTTGGGCAGCCTCAACGCAGGTGGATCACTTGAGGTCAGGAGTTG
AGACTAGCCTGGCCCCAACATGGTGAAACCCTGTCTCTACTAAAAATACAAAATTA

Sequence 647

AGGTACNTGTTTCAGTCACTGGGCTGANNTGGNNCACAGCACAACTTCATAGCCACTGT
ATGAAGAAGTANAAGACCCAGACTCTTGCTTTATGTTGGTATCAAAAGTCATTTAGAGT
CAGGCTGATCACTCCAAGTAACCCACTGACTTCTTTACTCCAGCTCTCTGTCTGCTGNT
GACTCANAANGTNACACTTNATTTTCTCCATTGCTGATATAATCATATCTGCAACATAAA
AGTGGGCATTTTCTTTTCTACATCAACAGGCAGCACAAATACCTCTGGTGAGAAGGAAT
TCNAAGAAATGGTTNTTCTACTGACTTGAACAGCACCTTCATCAGCAGCAGATGTCAGAT
GGGAAGGC

TABLE 1

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Sequence 648

CCGGGCAGGTACCACTAGATTGCCTCCCTGTGCCTGGGCAATTTAGAAAAATGGTGGTTT
TCCTTTTCGTTTCCATCTTTTTTAAGACTTAAAAAGTATCTGCTCTCATTCTCTCCTAGCG
GCCTCCATGCCTTGACTCAAAAAATGCTGTCTTAGTTGACAGCCTTGAAATGAGTATGAC
CCTAGCTCTAGTTGGGTGGAATCACCCTCGCATAGAAATAGACCTGGAGGGCCGGGCACG
GTGGCTCACTCCTATAATCCCAGCACTTTGGGAGGCCAGGTGGGTGGATCCCGAGGTCA
GGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAAAAAAAAAA
AAA

Sequence 649

AGGTACTAGTATGAAGGAAATAATATCCACACACTGATACTGGTCCAGCNGAAACCAAGA
CCGCTCCTGGTGCACTTAACCTTTTAACAGAGCANGGACTCANTTCTCTGAAAATAGTGCCA
TAAACATGTGCTCCCAGAAAGATAAATATTTGGCTTGCTAGAATTTCTGCNGCTTTTNT
GTAAAGTTGATTATTCGGTATTAAAGAGGAGTATCAAATATGNGTNATGNANNAAAAA
CTTGAAANAGTANNGGACCNNGCTTATCTCNTCATTCTGCACACTNCAANTC
ANTCNTTTCCCATCTTNTTCCNTCTCTGNAATTTATCACCCCTCCCCCTCT

Sequence 650

GGCGATGGACTCCACCGCGGTGGCGGCCGAGGTACTTACCACAGAGAAAAGCCAATAATC
ACAATATATGTTGTCTTACTGACCCATAACCCATTTTCTGAGGGTGGCAGGCATTGTGCC
CCCACTGTGAGGTGGGACTATACATATACAAAGGAGGTGTTAACTGGGTGGCATGTC
TCAGGGAGATGTAANGACTTACCTGCATATCCTGGCAGTNTTGAAATGATAGTGAAGTGT
TCNTANGGCNTCCNCTTGATGGCATAGNCNAAACACCAGNATTTTCTTGGNAGAATGATT
CGGNAATGCTACATAGAAGAAATGGNTGGTGAGCTNTTACTGTGACTGTGCCCATAGTA
AGTCATCCTGGACCCTCTGAATCTTATCCAC

Sequence 651

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGTTTTTTTTTTTTTTTTTTT
TTTTATGATATTCATCTATGAACCAATTTAATTTAATTTAAAAATGACTTCTGATCTG
GCAGATGATTTGGGTTCTAGAAAGAAATTGTGCCAGGCATGGNNGGCTCATGCCTGTAATC
CCAGCACTTTGGGAGGCTGAGGNGGGAGAAACCTGTNAGCTCAGGAATTGGAGACCAACC
CTGGNAACGTAACAAGACTTNTTTTTACAATATTAATAATAAAAAAGGCCAGGTGCCG
GNGGTTACACCTGTAATCCCAGCACTTTGGGAGGCCACCAGACAGGTGGATCATNAGGT
CAGGAGTTCGAGACCAGCCTGGCCAACGTGGGGAACCCCTGCCTNTACTAAAAACACAAA
AATTATCTTTGCTTTGNTGGCGGGAGGCTNTAATCCAGCTTCTAGGGAGGTTGAGGCAGG
AAAATCNCCTTGAATCTTGAAAGCAAAANTTNCAATNAGCCCNNGGTCACACCATTGCTT
CCAANCTGGGCAACAAAGAGCCAAATTTNTTNAAAAAAAAAAAAAAGGGCCGGCCTTGG
GGGTNTTCCNGGAACCCACNCNTTNTGAGGCCCCACCGGTGGTNTTAGGGNCGAGTT
CAAAACNNCCTTCCACTTTTNGAACCCGTTTTTTTAAATTCCAAAAATTNCTGGCTGGATA
AATCCGNAGCCCCTTCTTGNGGGTGNGGNNGGANTNTTCCCNCAANNGGGGTGGGTNA
NNCCGAAANCCCTTATTTCCCCTNTGNAAAGGNGCTTTTCNAAAAAAAAAAAAAA
NA

Sequence 652

CCCGCGGTGGCGGCCCGGCCGGCAGGTACAGGTAAGGCAGAAGGAAGGAAGGGCAAAGA
AACAATTCAGGGCCCTGGTTTCTGGGATGACAGGCTTCCCAACACTCATGCCAGGACTA
TTTTCCACCTCGGTTCACTATGGGTTTTTTTTCTTTTTTTTAAATATAATGAATTTTTAA
AATGTGTGTTTGTGCCCAGATTATCCANAAAGAGTTGAAGGGAGGAAAGGNGTGCNTG
GGGTGCNTGGGANTTTTANCCCTCTNTCCACCNGATTTCTAAGTTGGGGGGGGCATCCA
AACAGCTTCACCCANGTGCCCAGGCTNTTTTTGNTNTCAAAGCCAACCCCTCCAGGGC
ANGGANGGGTGAAGNTTAGGAGGGCAAAGGTTAGCCTGGAGGCTGCAATTAACAAGAATC
AAANTGGGGTTTAAAGATTCTCACACCCAGTTTGCTAATTTAGCTGGTCTTGTAGAGG
TGACACCTAGTAGGACAACATGGNTTTTNGGGCAGGGCTGGGGTGCTGGTCTCTGCTTCT
TAGGGTAGAAAGGAATCATACATTGAAAATGCTTAAATCGATGGAATGATTTATGTTCT
NATCTTTTCATCTTTTTCTGNGTGGCTGGTTTTCTGCCANCCTTACTTGGACAAGCACCAT
TCTANACCTTTTCTNTAGGCATNTCCNAGAANGNGAAGTNGAAAGGAAGAAAAAACTT

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ATTTTTNNGNCCAAAATTNNGGCAAAAAAAAA

Sequence 653

TCCACCGCGGTGGCGGCCCGAGGTACGCGGGGGCCCTTCTATCTCAGGATGTTTGCACTT
GCTATTTCCTTTTCTTAAAGGCTCATCCCTAGATATTTGCATGACTGGCTTCCTAATTTN
NTGTAAGCTTTTGCTGAGAAGTTACTTTACCAACTGTCATTGAGGTTTTCCCTGAACATC
TTAGGTAAGATAACAAGCTCCCTCCTTTCTTTCCTCACTTCTTGGTATTCCTTATCTC
GTAACTTTTTTTTNNGGGGGGATNGANACTTNCGTNTTGNTTTTGTTGGCCAAGCTTGGA
GTGCANNGGGTGCANTCTTGGCTTNACTGAAACCTCCACCTCCCGGGTTTAAAGCGATTCT
TTCTGCCTTNAGCCTNCCGAGTAGCTGGGACTACGGGCAAGTGCCACCACACCCAGCTAA
TTTTTTGTATTTTAAAGTAGAGGTGGGGTTCACTGTGTTAGGATGGTCTCTATCTCCTGA
CCTTTTGGGCCACCCACCTCGGCCTCCAAAGTGCTGGGATTATAGGTGTGAGCCAGTGCTN
CCCGGCCTCTCATAATTTTCTTAAATT

Sequence 654

CNAATTGGAGCTCCCCGCGGTGGCGGTGAGTTNGTCTTAGAGATACCCATGAGGTACCT
ACTCAAATGGGGCTCAGAGTAGCCTTGTCCATTCTTGTCCAGTGGGCGCAGCTACAGT
CTNNTGNNNGGAGTGACTGGAGGCTGTCCACAGTCCCACTTCAGTGAGGCATTTCATG
TGCACCCAGCACACTTTCTAGCTTTATTTGCCTGGAGGGGAAGATTCTCCAGAACCTTGT
TAAGATGCACAGNNGGGGCCCTTGGACTGGCAAGTGTGGCCTTNGGCAGTCCCTNGGAGC
TTGTTAGGAATGCAAATNTTAAGCTTCTTCTACTGNATCTAAAGGTTGANTTTAAACA
AGATCCAGCTTGTTTCGTTTCACATGAAAGTTGAGGCACACTGCTCTAGAAAGTTCTTTT
ATCTTTACTGGCCACCAAAGTAATCAAACCTTGNAGAGTACCCTCGGNCCGCTCTAGAA
CTAGTG

Sequence 655

GCTCCCCGCGGTGGCGGCCCGCGGGCAGGTACGCGGGATATGAAGTGAGGTTAAGTCAGA
TGGAATGGCAGTGGACTACTGTTTTGGTTAATAAATCGAGATACCCTTAAGAGTTGTGN
NCTGAACATACTGTCTTTCTTCCCCAGTTCCATGTCACAGCACCTGCCTAATAATAGGT
GCTCGAAAAACATCTGTTGAATGAAATGAATTCTTTTGTGTTGCAGTAGGGCAAAGAAGGG
TAGAGAGGAACNACTTTGCCAAGCTGATNTGTAAATGTTGCAAAAGGGTTTNGGCCAGAA
AATTCNANAACCCATTNGAGAGGCAATACATGTTAAGGGACCTNTAAGATGTTTCACAA
CCTTGGAATAATTAAGAAAGAACTTTCTACTGNTTACTTATTTCCCACTCCTGGCTGCC
CCTCTTGGGTGGACTGCCTNCTGTTGGAGGGAATACTGNGTGAGACACATCTTTTAGTAA
AACAGAAATGTGAAACCAACTTGCAAGAAATCACAAGCACACTGTTACCAAATAGGTCTTG
ACTGGCTCCCTTNTGGGGGACAAATGTTTTGATAATGTCTGTGAGTAGATTGAGTTCCC
TATTTCTTTTAAAGACTTGATTTTAAAGAACTGTTCTTTTGGCCAGCATCGCAAN
GAAGTTTTTCTTTAACTTTTGGGCCAAAAAAAAAAAAAAAA

Sequence 656

CGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACAGGATGTTTTCTAAATTTTAAGT
CAAATTCCTTCTTGACACATACCTATTTTTATTTGTTTTGGTTCTCATCTCTGTGAACA
GAGCAAAGCATGCAACCATTGTAACACTTTCATTTGTTTTATAAACTCAAGTTCTAGAG
TTGGATTTCTGATTTGCATAACTCGGCATAGTGTAAGTGCTTGTAGTTTTAAACAGAAA
AAGAGGGAAGAAATGACNATTCANAAAAAAGATCAAATCTTATGACTGTAATTTATTA
AGGNATCCAATGGAATCTTCCCTTTTCTTCTTTTTTTTTTTTTTAAAGAGACAAGC
TCAAGTTCCATAAGCTGGGAATGCAGTATCATGATCCATAGTTCACAGCAGCCTTCAACT
CCCTGGGGTTCAAGGNGATCCTAAGAACTTGNNGGCCTCAAGCAGTCCTCCTGCCTCAGC
CTGCCAAAGTGCTGGGGATTACAAAGCATGAGCCACTGCTCCTAATTCCTAAGAGATA

Sequence 657

GAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCGCGGTGGCTCATGCCTGTGGTCCCAGAAC
TTTGGGAAGCCGAGGCGGGCGGATCACGAGGTGAGGAGATCAGGACCATCCTGGCTAACA
CGGTGAAGCCCCGTCTCTACTGAAAATGGAAAAAATTGGCCGGACCGTGGTGGCGGGCGC
CTGTGGTCCCAGGTGGCTGGATACACGGGTGTGCACCACCATACTGGCTGATTCTTGAT
TTTTGGTAGAGATGGGGNTTGGCCNNGTGGTCCAGCTGATCTTGAACCTCCTGCACCTG

TABLE 1
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CCTNNGCCTTCCAAAGTGTTGGGATTACCGGTGTGAGACACTGGCCCCTGGCTATATTTT
ACTATTTGGAAATCACAATGCATCTTAAAATTGATGGCTTCTTGCAACCACTTTCAACCA
GGTGCCTGTCATGATTTAAGTGCTAGCATCAAGGCAGGTTAGTTATGAAGAAATAGAGTG
TGTGTTTATATACTCACACAGTTAGAAATCGACCCTTTTAAAAATTATTTCTTTTGGAA
A

Sequence 658

AGCTCCCCGCGGTGGCGGCCCGCCCGGGCNGGTACCGCGGGATATGAAGTGAGGTAAAGT
CAGATGGAATGGCAGTGGACTACTGTTTTTGGTTAATAAATCGAGATACCCTTAAGAGTT
GTGTTCTGAACATACTGTCTTTCTTTCCCGAGTTCCATGTCACAGCACCTGCCTAATAAT
AGGTGCTCGAAAAACATCTGTTGAATGAAATGAATTCTTTTGTTCAGTAGGGCAAAGA
AGGGTAGAGAGAAANCAACCTNGCACAAGCTGNTTGTNAATGTTGCAAAAGGTTTAGGC
CAAGAAAANTTCNAAAACCCATTNGAAAAGCATACATGTTTAGTGGAACCTTGAAAATGT
TTTCAACACCTTGGGAAATAATTTAAAAGTAACTTCTACTGGTTTTACTTATTTCCCACT
CCTGGCTGCCCTCTTGGGGTGGGACTGCCTCCTGTTGGGAGGGGAATACTGTGTGAGGA
CACATCTTTTAGTAAACAGAAATGTGAAACCNACTTTGCAGAAATCACAAGCACACTGT
TNCCAATTAGCTTGACTGGCTTCTTNCTGGGGGGACAAATGTTTNGATAATGTCTGTCA
GTAGATTCAGTTCCCCTATTTCTTTTAAAGACTGATATTTAANAATACTGTTTCTTTTT
GCCACCTCGCANTGGAAGTTTTNTTACTTTTGCCAAAAA

Sequence 659

CCGCGGTGGCGGCCGAGGTACTGGTAAAGGGATAGTCACATAGATCAATGAAAAAGAACA
GAGAATCTGTGAACAGACCATGCAAATATGCCTGCCTGGTTTTTCAACAGTGCAAAAG
CAACTCAGCCAACAAAAGACAGCTTTTGGCCAGGCCGAGTGGCTCACTCCTGTAATCCC
AGCACTTTGGGAGGCCCGAGGCGGGTGGATCAACGAGGTCAGGAGATCAAAGACCATCCT
GGCTAATATGATAAAACCCCGTCTCTACTAAAAAACACACACCCCAAATTGCCCGGTG
TGGTGGCAGGTGCCTTTNGTCCCACTNCTTTGGGANGGTTAAGCAAGGGANAATGGCNT
TGAACCCGGAANGGAAANCTTTGCCNTGGGGCCCANATTTNNNCCNTTNNNCTTCANCT
TTGGGTGNANAAAAANCNGGACTTGGTTTCAAAAAA

Sequence 660

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTTGAAGGTGAGCTTTGAA
GATGCAACATGAATTTGACAGTANAGATGTAGGGAGGAAGGAAGGCAGGACAGGTCAGAC
AGAAGTGCAAGGAACAGCCCAGGCCTTTGCAGCCTTCCACACCCCTACAAGACCTGCC

Sequence 661

ACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCCGCCGGGCANGGTACGCGGGGACT
TGACTTAAACTCTGGGGCCCGGGAGGCCGCGGTTTTCTCCCGCTTGCCGGGGTGGTCC
TCTTCCCTTTGTCGGACCAAGAAGTAAACACTGTGTGGAGAGGGACTGACGTGTTTGA
GGGAAATGGGAATGTACCT

Sequence 662

AGGTACTCCAAGCTCTGAGACCACCTCTTCTGCAAAGCCTTCTGATTCTGCAAAGAACA
GGTAGGCATTTTCATCCTTGGGACCTCACAGCAATTCAGGACACATTTGTGTCCCAGCCCT
GCTTGGCTTGGCTGTCTCCATGAATATACACTTTGTAACCTTCTGCACCAGGCATCATACC
AAGCACACAGTAGGCACTCCTGTGTTTTTGAATAAGTGACTATATCATCACCACATTTT
AAATGCGGAATATATGAGCTACTAGAAAAGACATAAGGGTAGATTTTACATCTTTATTGT
ATCCTAGATATACAAGTCTATTACTGCCTTTTCCCATGTTCTGTCAACATAGCATAAAGA
ATGTGGATTACCTGTTAGAAATTGAATAAGCGGCCGCTCTAGAAGTAGTG

Sequence 663

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGTTACACGGCAATTT
TNTTAATAACTCCCTTTACTATGTCAGACAAGCTATGTCAAGCGTCTTCTGTATCCTNTA
CGGGGAAAAAAAAAAGTTAACCAGAGCCAAATGCTTGCTTTCAAAGATAACTTGCCATC
CTGAAAATATAATTTTTACAATTCAATAACACCTTTTTGAAAAATAAATAATNTGGCAA
AAATGCCCATGCATTAACAAACCATTTTTTCAGTTTAATCTCTTTATATGTTCAACTTTG
ATGTATTTTAAATAACAAAGCAAAATCAACTAAAAATACAATCTGGATTCCATAGCCA

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ANGGTTTTATTTACAATTCCTANTAGGAAGGCTTTATTTTTAGCTNTCAAATGGGGNNGG
ACCTATAAGGGAAATTTAAACCGTTTNCNTTGAGTTTTNTNTTTNAAGGGGAANGGGGG
AGGANTTCCCAAATGGGGAAAGGGGAAAAAAGGGGGNAANNCCNTTTTGGCCTTTTNN
GGNANTTTTAAAAAAAANTTTNCCCCCCCCGNGNCCCCCAAAAAAANNAANNTTTT
TTNAAAAAAAAAAAA

Sequence 664

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGTAAGTCTGCTGGTTTTCTGGT
GTTCTTACAAGCTGCCTAGGTCTCTTTGTTCTCAGCAGTTCAGGTCATGCAAAAGTTG
CCAGTTCTGTCAGCATTCCAAGTCAGGTAAGACAGAAAGCCATCTCTTAGGCAGTCCCCA
GAAAAGCTGAAAGGTTGGATATACTTTCTACTCTTCTCTTTCTTCATGAGAGAAAGGCC
ATGTGGGCATTTTCTCCCAATAACACTGAGTTCTGTTGTCTTCTGTGCGGCTGTGCTGCAG
GTTCTCAGGTGCTGCAGTTAGCTGCT

Sequence 665

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGTAAGATTTCTGAAGGGATCCATAGCC
AAAACATGTTTGAAGGCCACTGGGCTCGCTAACTTCTAAAAGCACCCAGTTCTAGCAGA
CATCCTAAGGAACATTCCCAGGAAAATTCCAGCCTAGAACCTCCTGGGGTCTGACAACCT
TAGAGAACAGTGCTGGCTTTGAATGGGCTTGGGGCAGCCTCGAAACCCTCTTCCAGTC
TCCATGCAGGCAGGGGAGCTCCTTAAGCAACACATAGGACATTTCTGGGAGAAATGGGAT
CCCCAACACAATGAACACTATAGATTTAATGGTCTATATGGTTAAATACACAAGGCCCC
TCATTTCCAACCCCGCCTGTTCTGATTCTGTACCTCGGC

Sequence 666

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTCTCAGACATTCCTCCAGTGGCT
GAAGTGGCATATGAATTATGAAGTTGGATCATTTGGAATGAATGTAAGAGAATTGCCAAG
GGCTCCTCCTACTCCAGAGAGGAAACCTCATCCAGGGCCATGAAGCCACTTCCTCACCAT
CTGTGTGCTGCTTAAGCTAATGCTGCGGGAACCATGGTTCCTTGGGAGGAATCAAGCTGA
CTCTTGGCATGAGATTCTGCCTTCTAGGGTTGAGAGCGGCACTGCCATGGCTTCTCTG
GACGACCCAGGGGAAGTGAGGGAGGGCTTCTCTGCCCTCTGTGCCTGAAGGATCTGCAG
TCTTTCTATCAGCTTCACTCACATTACGAGGAAGAACACTCAGGGGAAGGACCGTGATGT
CAAAGGGCAAATTTAAAGTAAGAGGCGAGGACCTTGCCCTACCCCTGCTTGTGCTTGAGA
GCTTTAACTCACNGGATAGTTCTTATCACTTTTGGTGGTGGCACAGGNATATGATAATTA
GTAGTAGCCAACAGATGACTAGTNGTTGTCATGTGCCAAGCGTTTTAAAGTTNCCTGTT
ATTAATTTCAATTA

Sequence 667

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACGCGGGGGAAGAG
AAAGCGTGAGGGCTGGGCCTGCGGCGGGCTTTAGGGAGTGGTCCCTGGCTGTGGATAGAT
CTGCTGATGAGTCCAGGCCCGGTCCATTCTCCTCGCGCTGCAAGGATGCTCCTGGGATT
TCGGAGAGGCCGAGGAGTCATTTCAAACACATCATCCATGGCCTTTTACCTGCAGCCAG
CGTTGCTCCGAAGGCAGCTGTGCCACGCACACCTCCTCCCCGCAGCCCAACCCATCTCC
AGAGAGACCAAGATCTGCTCTGGCAGCAGCCATTCTGGCGACAACATTGAC

Sequence 668

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTCTGATAGGAGAGGGAGGAGGG
CTGGCAGCTGAGTAGCCAGAATCAGGCAGACGGTGGTAGCAGAAGTCAGAGGCCGAGGGGA
ATCAGGGAAAGGAGTTCAACCATGGAGGACCTTGCTGGCCAGGTTAGAGACTGTGGACTT
TTGTCTGGGTGAGACAGGAAGTCACTGGAGGGCTGTGACAGAGCTCTGAGGCTGTGAGGC
ACTGCTCTGTCACTGCCATGAGTGGGGAAAAACAGGAGCTTGCTGCACTGGTAGAGACCAC
AGATAATGATGACTTGGACAGAGCAGCTGGGAGAGAACTAGTTCAATAACCCTAACACGC
CTCTCCATTCTGCATTTTCCCTAAAAATGTACCTGCCCC

Sequence 669

CCGCGGTGGCGGCCGAGGTACCTGCCCTATCTTGCTGAATGTTTTATAATCTAATAAAAC
TCAGATAAAGACCCAGATGTACACCTGAACAGGAAAAGCTGAAAGGAAAAGATAATTA
AATATAAATCAACAGATCAAGATTTGAAAAGACCTAGAAAACCTGAAGGATTACTGAA

TABLE 1

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GCCAAGCAAGAGGAAATGATAGGATTAAGTAAATCTTGTGTTTAGATTTTTTTTTT
TTTTCAAACGGAGTCTCGCTCTGTCACCAGGCTGGAGTGCAATGGCGCAATCTTGGCTC
ACTGCAATCTCCATCTCCGGGCTCAAGCAATCCTCCACCTCAGCCTCCCTAGTAGCTGG
GACCACAGGCATGCGCCACACGCCTGGATAATTTAAATATATACATATTTTTGTAGAGA
CAGGGTGCTGCTTTATTGCCAGGCTAGTCTCAAACCTCCTGGCTTCAAGGCATCCTCCTG
CCCCAGCTTCCAAAGTGCTGGGATTACTGGTGTGAGCCACTGTGCCGGGACATAAATAG
TTATGCTGTATTGGTTAAGGAATAATGACA

Sequence 670

CCGCGGTGGCGGCCCGGGCAGGTACGCGGGGAGGTCATGCCCGTGTGAGCCAGGAAA
GGGCTGTGTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTCTTCCGTGGTGCCATC
TACATTTTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCCGGATGTCAGAGG
TCCTGAAATAGTCACCATGGGGGAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCATT
CCGATCGCTTTTTGGCCTTGATGATTTGAAAATAAGTCCTGTTGCACCAGATGCAGATGC
TGTTGCTGCACAGATCCTGTCACTGCTGCCATTGAAGTTTTTCCAATCATCGTCAT

Sequence 671

CCGCGGTGGCGGCCGAGGTACAAGGAAGGCCTTAAAGACTGCCCACTCTCCTTGTTTCC
CATCCCCTGTCCCTTCTACTTCTCACATTCACCACTATGTGCCCTAGGACAAAATCAAAT
GTGGAACATTTGGTCATGTCTACTTTGTCCAAGGGTGGGAGTTCTTGAGGAATTCAAGT
GGGAAGTAGAACAACCTTTCTACCCTTTCTTCCCTTCCCTTCCCTCCCACTCTACCTAGA
AGCCCATCAATCACTTTGAACTTCTTGAGAAAAAGGAAACAAAAGAAAAAGAAAGGA
GAGGCTGGGTGCGGTGGCTCATGCCTATAATCCCAGCACATTGGGAGGCCAAGGTGGGTG
GATCACTTGAGGTGAGGAGTCGAGACCAGCCTGGCCAAAATGGTGAAAACATGTCTCTAC
TAAAAATACAAAATTCGCTGGGTGTGGTGGTGGGTG

Sequence 672

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGACACTGGTGGGG
GAGAGTCCGACGCGCCTGGCTAGGAGCGCCGACCGCAGGGCCTCTACGGACCTTACTAGA
AAAATGAAACCTGATGAACTCCTATGTTTGACCCAAGTCTACTCAAAGAAGTGGAAGTGG
AGTCAGAATACAGCTACATTTTCTCCAGCCATTTCCCAACACATCCTGGAGAAGGCTTG
GTTTTGAGGCTTCATGCCAGAAAGGGGAATGGGGAATGGCTGCTTAACGGCATGTNTTTT
TT

Sequence 673

CGCGGTGGCGGCCCGGGCAGGTACACGATGAAACGGGGGTAAGGAAGGAGAAGAAAA
ACATTGAAAGGCATTTGACAGGGTAAGGTTGTATCCCCAGACAACCCTGTCAAGCAGCT
CTGAAGGGATGATGAGCCTGGACTCTCTGACTCCTAGATTATGAACTCCTGCAGTGGAC
CATGTCCTATTTTTTGGAGGCGTTGGGGGGAATTGTCTTACGCAGCACCCAAGCACACTG
CTATGCAATGGACCACAGATAGGAAGCAAGCACTGCATTTGGCTCCCCCGCGTACCT

Sequence 674

CCGCGGTGGCGGCCGAGGTACTAAATCATTAAATTCATCCTGAGCTAGTGGCTTTATTAAT
GAGTATCTCACAAATACCACAAAAATTCAACCTGGCCATGTGGAGCAATATAAAATTATG
GCATTTCTTGGTATGTTTTCTCTTTGGCGAGGAGACAACCTTGATCTTGTTTCCAGAA
GCATGTTAATTTGCCCTGCTTGCAGAATCTCTCTGGCTTGAAAGGAGATTATATTCATGG
CAGTCTGTGAATTTTCATTTTATTTCAATTTATTTGAAGACAAGAGTCTCACTCCAG
CCTGGGTGACAAGAGCAAGACTCCCGTCTCAAAT

Sequence 675

ATANGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGGAGGTACCATGAGGGGAGA
ACCGGCAAGGGGTGCCATTCTAGCATCTGGGTGGGAGAGAGGAGGCTGAATGCCAGGGGA
AACTTCTTGAAAAAGTGATGCTGAGTTAGGACAATTTAGTCAATGAGAAGGGATCTGGC
TGTTCTTGCGAGTGAGACAACATNTTTAAAGGCATGGGAGAATATCTAAAATTTACCTT

Sequence 676

AGATAATAACATCTGATATCCACATGGGGTCTGGAGGNGCAAGCCACCTTCTTTTCATCC

TABLE 1

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CACGGTCTCACAGCAGCCCTGGAAAGAGGCTGCTCTCTGTTGGAGGCTAAGGGCCAGTGT
TGGAAGGAGCTCGGGTGGAAAGTGTGGTCTGCATGAGGGGCTCCCGTGAATAGAGGAGAG
GGGTGGCNGGTACCTGCCCCG

Sequence 677

TACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCANGGTACCTGCCTC
TGCCAGATACCCCTGAGGGAAGAGGATGTTCTATAACCAGGCCGACAGGTTAGCATTTGT
GAACACAGTTCTGACGTTGTTGGGAGGGTTTGTTCAGAAACATCCCCATGCGCTACT
CTTCAACCAGAGGTCAAGAAGTCCTTTACTTTTGTGTCTTTTTTGTGTTGTTGTTGAG
ACGGAGTTTCACTCTTGTGCCCAGGCTGGAGTGCAATGGCGCAATCTCGGCTTACCACA
ACCTCTGCCTCCCAGGTTCAAGCAATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATCA
CAGGTGCCACCACACGCCTGCTAATTTTCATACCCGCGTACCTCGGCC

Sequence 678

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTAAGTCTGTGGTATTTC
CATAATATTAACCAGCTGTTAGCAATGACTGATATATACTTCCCATGAAAATGATGTAA
GGTCTGAAAGGATTCATTTTGACAATTTTATATCACATATTTATTTACCTTAGGTGGT
TCTTTTAAATGTTTTAATTTGGGACCACACTAATTTCTAACTTGGTAAGTCTCTCTTAC
CAAAATTAATACCAAGCCAAGAAAAATGGTTTCATGAATAGAATCTACTAGTCTTTTATA
TCTTATAATGGTAGATCACTGATGAGGTAGAAGTCCATAAGAGCTTCNCTCTCACAGTNA
AAGGTTTTGGTTGTGCATGGATTACACCTGGTGAAAGTTGGTTAGTATTTGTCTAAGTGG
CTTAAGACAAATTTATTTTGATTTGTATTGTGAATGACTTTGCGAANCAACCAGAATTTT
TNCCGCTTCGTGTGTNGTGTGTGTGTGTGT

Sequence 679

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCCACATAATAGCTC
AGTGCATGCAATTTACAAAGTAATAAGTGAAATGCTCCCATAGTTGACTATAACATTTT
CTCATTTTTCTCTGAATTTGCTTTTTAAAAAACTCTTCCCCTTGCCATTCCCTTCCCCAT
TCCAGATTGTAAGTCTTCTTCCAGCTGCATCAGAAGAAGGGGACTTTCCATGTAGGTG
TTATTCTCAGAAAAGGCCAGAAAAGACCAGGTGATGGTGGGGATGATTTGCTCCAAGCAT
AAAAGAGAATTTGTGATGGTTTCAAGGAAGTGGAAAATAACGAGACTGGAAAGAAATGAGA
AGGGCTTCAGAGGAATGGCACATTGAAATAAAAGGGAAGTGGTAAGAACAGGAACCCAAG
NGGAATGAANGGGCNCACAGTGGCAGGGATGATTGGATAGACTGTGGAATAAAAAATAATT
TG

Sequence 680

AGGTACAAACTGGCTTCTTCTCTTTGTCAACAGCACCTGCTTCATAGTCTCTCTGGAGTG
CCAGGAACGGGTCATTTAGATTAAATCTCCCATACCGTTCTGGATAAATACCTCCTTCC
TGCGAGCCCGCAGGGCCTCGATGACAAGGTCTCTGGCCTCCAGCTCCCTTCCATCACGC
TGAGGAGCATCCGCAGCTCGGATTTACTGAGAGTATCCACATCAAACCTCTTTTTTCAAGT
TTACAAGTGGAATTAAGCAGTCTCTCCCGTTTCTCCTTCCATTGCCAGGCTCAGCT
CCTCTACCCCCAAGTACCTGCCCCG

Sequence 681

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGGTGGAAGTGAGGTGGTTT
TATTTCTAGTTACCATTTGCTTATAGGCTGTATAGACCTCTGGAATCCCAGCTTATGTGG
AGAAGGTATCCTGTTAGACTTCCCTCCTTTGGTCAGCACTGGGCCTTAAGTCTGGCCCC
TCAAAGCTGCTAAACTGAAGGCCAGGCTTGCTGGCTTGGCAAAGGACGTCGGGCAGAA
GCAGCTTCTCCTCTCCTCTTTGTTTCTGTGTTCCCTCACCATAGGCTTTGGCCTGGGAG
TTTTCTACA

Sequence 682

CCGCCCCGGGCAGGTACCTTCTTGGTTGCTGTGACTGTCTGCTAGCACTAAGACTGTCTTA
AGCAGATAGAGGGCAATGGTCTTTGAAGGCAAATGACAAAGCGTGCCCTGAGCTCCCTG
ACTGAGTTCATTTGAGCTCTCAAGGGATGCCCTGGAGCTAGACTCGATCTGAGTGGTTGG
ACTAACTCCTCTTTGTTTTTGTATTGAAGAGCCAGCTTACCCCGCCATTTNTAAACCTCA
GGCCAGGAAAACCAAAAAACAAAAAACCAACCAACAAAAACAAACCCACCTTCT

TABLE 1

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TNAGAANTNAGTAANCTTAAGGCTTNAAGAATCAACAGNGCCCCCTTTGGGNATTAAGGGC
CATT

Sequence 683

CCGCGGTGGCGGCCCGAGGTACTATAAAATACTATCCTAACTTTTTATGTGTTTTTTAA
CTTGTTTTTAGAAGTTTTGTAGCGTTTTTAAAAATGATGTATTATAACTGGTTAGGA
TGCTAATATCTGTATCTTTTACTCTATAACCTAATTTTTACATTTTCAGAAAAAATTTT
TACAACAATGTAAAAAATACATGGCCCGGGTGGCTGCGGTGGCTCACGCCTGTAATCCCAGCAC
TTTGGGAGGCCGAGGCGGGTGGATCACCTGAGGTAAGGAGTTAGAGACCAGCCTGGCCAA
CATGGTGAAACCCCGTCTCTACTAAAAGTATAAAAAATTAGCTGGGCATGGTGGCAGGCGC
CTGTAATCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGAGGCAAA
GGTTCAGTGAGCCCCAAGATCCGCGCCATTGCACTTCTAGCCAGGGAGAGAAGAGCCGAG
ACTTCATCTTAAAAAAGGTC

Sequence 684

CGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACACTCTGGCCCTGGCTTTATTT
TTAGATTTTCTTTCCCGGTTGATATCGGAAGGCACAGAGGCAGGAGGTGGGGTGGATAG
TAATGTGTGCCCCCTTGGGGGTNANAGTGAGGTGGAGGGGATGTTAATNACCATGAGAG
GCAGAGGGTCAGNCNANTTTCCANNGCTTCNNGCTTCCTTTAATGANGGAAAACACGTG
CANGTNTTAGGAGACAAAGGAAGGGAANTGACTGTTTCCTGGCCTGGTNTGTGGGCCAG
TNGNCTGNTNCNTTCAGTGCTNCTGCACTTNGACTNTACACNTANGNNGGCAGGCATA
GGTGTNCGGTTNTGAAAGACNGNNNTCTTNCACATTCTCTNCTGCTCTAGGGACTGAC

Sequence 685

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACTTTAGTAGAACTCTA
GGAACTGACCAACCCCTTTAACAACCAGGGGAGTGCTTGATGAAGGAAGAGGCTACCGA
TCTTTCATAAGTATGAATAAGCAGCATGCATAAACCAATTACCTTCCCCTATTCTCACA
ACCACCACCACACCCACCACCTCTTGTGGCAGTGCGGATAGCAGCCCATGTTCTCTGG
AGTTGCTAACCGGTGCCAGGAGGGACAGTAGGGATCATGTCTTCAAATTTAGGGTTGT
ACCT

Sequence 686

CCGCGGTGGCATGCATCAAGGTGACAGGTGACGGCATGGTTATGGATTAACCTACCAAGG
AAATGAGTGTGGAAAGAAGAATGCANAAATCTGAGGACTAGAGCCTGGAGATGGGGAGCT
TCGAGCTCAGAGGAAGAAGAGGATCTTCATCACGGGGAGACATCAGCCTTCTGAGTATCT
GGGACTGCAGGTTATGTGCCACCACACTCGGCTAATTAATAAATTTCTTAGAGACAG
GGTCTCTACGTTGCCAGGCTGGTCTCAAATCCTGGGCTCAAGTGATCCTCCTGCT
CAGCCTTCCAATGCCTTGGGCTT

Sequence 687

ATGCATCAAGGTGACAGGTGACGGCATGGTTATGGATTAACCTACCAAGGAAATGAGTGT
GGAAAGAAGAATGCAAAANTCTGAGGACTAGAGCCTGGAGATGGGGAGCTTCGAGCTCAG
AGGAAGAAGAGGATCTTCATCACGGGGAGACATCAGCCCTTCTGAGTATCTGGGACTGCA
GGTTATGTGCCACCACACTCGGCTAATNAAAAAATTTTCTTAGAGACCAGGGTCTCTC
TACCGTTGCCAGGCTGGTCTCAAATCCCTGGGGCTTCAAAGTGAATCCCTCCCTNGCC
CTCAGCCCTTCAAATGCCCTTGGGGGCTTACAGGCCATTGGAGCCCCACCATGTGCAAA
NGAAAGAANAGCAATTTTTGGACATCCTGCCCAAAACAAACAAAGGTTTGGGCAATGGG
TCCTGGTCAAGCAAAACAAGTGGGGTTTGGNGGAATAAACCAACCCTTGGGTTAAAAAT
AA

Sequence 688

NGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGGCCATTGAGACTGCCATGGAAGACT
TGAAAGGTCACGTAGCTGANACTTCTGGAGAGACCATTCAAGGCTTCTGGCTCTTGACAA
AGATAGACCACTGGAACAATGAGAAGGAGAGAATTCTACTGGTCACAGACAAGACTCTCT
TGATCTGCAAATACGACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTCCTCTGA
GCGCTGTCTATCGCATCTGCCTGGGCAAGTTCACCTTCCTGG

Sequence 689

TABLE 1

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CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGGATACTCATTAGAGTTGCTCGGTGG
AGATGGAATGATGGTGGGGTGCAGTTAAACATGGCTGAGTGCTTTCTGCTTAAGGACCTG
ATGTATTAATGCTCTCCAGGTCATTCATATTTGGGGGAAGGAACAAAGAGGGTACCT

Sequence 690

CCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTCTGCTATGAATCTCACA
GATGTAATAATGAGTTAAAGAAGCTAGGCACAAAAGAATATTACTGTATGATTCCAATCA
TATAAAGTTCAAACCAGATCAAATAATCAATGAACGAGGAGTCAGGATTCTGGTTATAT
TCAGGGATAGTGATGGAAGAGGGCTATAAGGAGGGTGTCTGGGTGCAGGTCATGTTCTAG
ATCTTGATCTGAGTGGGGGTACATAGGTGTATTCACTTCATGAGAATTCAGAGGGCTGC
ACACTAATGATCTGTATAATGCTCCTCTATAGTATGTCACACTTCAAAAAAGTTTACAGA
AACAGTTCCTTCCTAATTTTCACAGGGCCTAAGAGCTAAAAACGCAGCCCCAG

Sequence 691

NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGGGCCATTGAGACTGCCATGG
AAGACTTGAAAGGTGCGTAGCTGAGACTTCAGGAGAGACCATTCAAGGCTTCTGGCTCT
TGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGAATTCTACTGGTCACAGACAAGA
CTCTCTTGATCTGCAATACGACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTC
CTCTGAGCGCTGTCTATCGCATCTGCCTGGGCAAGTTCACCTTCCCTGGGATGTCCCTGG
ACAAGAGACAAGGAGAAGGCCTTAGGATCTACTGGGGGAGTCCGGAGGAGCAGTCTCTTC
TGTCGCGCTGGAACCCATGGTCCACTGAAAGTTCCTTATGCTACTTTCAGTGAATCCT
ATGAAATACACCAAGTGAGAAATTCCTTGAAATTTGCAAGGT

Sequence 692

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGCACTTTTTTTTTTTTTTTTTT
TTTTTTNCCATANAGATGGGGCTTTGCCATGTTGCCAGGCTGGTCTCAAACCTNTGAG
CTCGAGCAATCTGCCACCTCGGCCTCCCAAGGNGCTGGGATTACAAGCATGACCTGCCG
NGCTGGCTAAAGTTTCTTATTTATACTTACTCATTCTCTAATATCTGGATTTCTTAGT
CATCTGTCACTTCTCCCTGCATATTTCTGTGATGTCTTTAGGTCCCTCCCACTNTTGT
GTAGCACTCCCTGGGGACCAATTTGGAAGGATGCTGAGTCATATGGTTTTTGGTTTTGAG
AGGGTTGAAAATGGAGACTCAACTCAATTTAGGAGCTATCCCATCATACTAGTAGCAA
ACACGTCACTACTTGAGTCTCAACAAAAGACAAAAAGGTTTNAAGTTGGGGAAACAAAT
AGCTGCCAAGGGTTNTTNTNTNTGACAAAAACATTGNGTTGGGGATTTAAATCNATGT
GAATCCTTAATCCCTAACTCATCCATGTTGGGGTTTTT

Sequence 693

CCNCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCANGGTACCTGCTTNCCAGAAGTGT
TATCATGATTAAATGACAGACCAGTGGCAGTAGCATCTCCTGAGGGAGGGTTAGAAATGC
ATATTCTCAGGCACCACTGCAGTCTTGCTGAATCTGAAGCTTTGGGGATGGGACCCGGTA
GTCTTTTTGGATAACTCTGCCAAGNGGTTCCAATGTGCTCAAGTTTGAGAGTTGCTGAAT
TAAAGCGCTGGGTCTTGCCAGGCATACCTGTAATTCCAGCTCTTTGGGAGGCTGAGGTGG
AAGGATTGCTTGAGCCCAGGAGTTCGAGACCAGCCTGGGTAACATAGCAAGATCCTATCT
CTACCAAAAAAAAAAAAAAAAAAGTACCT

Sequence 694

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTAAGTCTCTGTCTTTAC
AGCTGAAGCATCAGAGGATGGAGTGACCAGGCTGGTTCCAATGACAGTTATACGGCCATG
GGGAGTANACATGGAGTCTAATTCAGTGCTTGAGGCTAAGAATGAAGTTGTATGCATTGT
GGAAATTGTTCCAGGAGATCTTGCAACTTTCAAGTTTGAAGTCATGTCTGTGACAGTCCA
GGAATNTGATGCAGCTGTGGAAGACCAGGTGGAAGGGTGTCTGTAGAAGTTGTGCGCCT
CTCTGTGGCCGGGGTGCTGTCCATGGTACCT

Sequence 695

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACACATGTATCANG
GAAAAGAAAACGTTATTTGTCCACAGATGCTGCTAGGAGCAGCTACCCCAAGACAGGCC
TTGCACCTTGGGTGATGACAATGCGTGGCTACTGAGAGCTGTTGACAGAGTGGACAGGGC
CCAGACCAGGACAGTCTCTAGAGGTCTTCACTCCTCAACCGTAACTTAATCAGCCCC

TABLE 1

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ATGCCGGGCTAGCCCCATGCCACAAAGGCTCAGAAATGCCCTGCAACATGTGGGACACCT
GGTAGTATCTACATAGGGGCCAGCATCCATCCCAGCTGCTGGGGGTGGCTCAAGAGCTGT
GAGGGACACCCTTTCCTGCCTGATACCGTGGACCAGTTTGCAAAGAGCTGACTGTCCTGC
TAGGCCCA

Sequence 696

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTTTTTT
TTTTGTATATTTAGTAGAGATGGGGTTTTACCATGTTGGTCAGTCTGGTCTCGAACGGN
TGACCTCAAGTGATCCGCCCACCTTGGCCTCCCAAAGNGCTAGGATTACAGGCATCAGCC
ACTGTGCCCAGCCAGCCCTATGCTTTTAAAGAGTTCGATGGTTGAAAGAGACTGAGCGGGG
AAGGTAGAGCGGGGCAGGGGAGGGGACTACTTGGAGTCAAGTCAAAGTTTTAGGGAAAGAC
CTGAATCTGAAAAAGATTATTTAACCTTTATGTGTCTGAAATACTATATTGTGCGAATTG
TACCT

Sequence 697

CCGCGGTGGCGGCCGCCCGGGCAGGTACACAAACACGACAGAAGCCCACGGAGCAAGCCC
TGTGCTGGCCCCTTCACATGACTTTAGGCCCTCTAGCAAGGTGATGTTTATTTACAGGGT
TGCATAAACAAGGCCTCACCATTCAAAAAACCTTGTATTCTATTACATGTTTCACATTAA
CAAAGACTGGAAATCTNTAGGAAAGGGATCTTTTTTATCTACATGAAAAGCACAGGCTA
GTAAAGACTTGTTGAAAAAGTTGAAAGAACATAAATGTATATGGTATATGCCACATAGCA
TAATGGAGGAAGATAGCAAATAGGAAACATATTGGTGAGGAAGACTGGAGTTTGATGATC
TAGTCAGGAAAACATCAAGTTAAATCCTTTACTTTACACCTAAACCATAAACTGGTGAAT
AAAACAAGTATGTGAAAGCACANANGAGAGAGGACAGGCCGGGCGCAGTGGCTCACGCC
TGTAATCCTACACTTTGGGAG

Sequence 698

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATCCTATGCAGNCATNC
TGTNAGNACCCATTCCATTNTNCTATCCCTGGNTNGCTGGTGTCAATACTNTNAAGCGAN
TACTGCNNGNGCTCTNNTTTTTCCCTCANAGATACCNNGTTGATTTCTTTGATTCTCTC
CATCTCTACAGGCATAATAACTCCTAATATTTAAAAACNCTGTAGAGGGATGNANNGAAG
CTGNGGNGAGAGCCCNTGGGCTTTTNCNNTGGGTNAAGATGCACATTCTGAAAATTNTG
GGCCTTGGCTTAAGCTGNACTAGNGCCGGCCACTCAGCTGATCTCACTAGCGTCACCTGT
CGCAATGGTGCTGAAGCGCACTNCCNAGAGGCCATAAGGCAAAGCGAGAGTNCNTGGCTA
TNGACTGGANCCCATTTAAGCAAAAAAACATGCCTCNCGNANGACAAATTCNATCAACAA
AGGGNGGGCAATACAGGATCTGTACCTGCCCGGGCGGNNCGGGCANGAACCTTTTTTTTT
TTTT

Sequence 699

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCAGCCCCGCCACCCGGCTT
GTGTGTCATCCTGGGCCAGGCAGGTGATGATGCCAAACACAAGGCCAGCTATGTAACC
AAGTAAAACTTTCATCAGAATGCCCATCTTTGTGACCCACAGCCCATTGTCAAGAGCCT
TCCCTGTGCCAGGAGTTCAGCAGGTTACCTCCGCCTCCACTAGTCACTAAGACACGGAT
ATTTTAAGAATTAAGCCTCCACAAGCCAGGCACAATGGCTTACACCTATAATCCACA
ACTTTGGGAGGCCAAGGTGGGAGGATCACTTGAGCCAACGAGTTCGAGACCAGCCTGGGC
AACATAGCGAGACCTTGTCTCTACAAAAAATTTAAAAGTTAGCCAAGCATGGTGGGGCA
TGTCTATAGTCCTAACTACTTGGG

Sequence 700

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAGTAGAGGCCAGGTTTCACC
ACGCTGGCCAGGCTGGTCCTGATCCCCCGGCCCCAGGTGATCCGTCCACCTCAGCCTCCC
AAAGTGCTGGGATTACAGGCGTGAGCCACCGCACCCGGCTCTTTTTTTTTTTTTTAAAA
TCATGATTTTAACAGAAGCCTCCATTCAAGGCGAGACATGCCTTTTATTTCTTAATTGC
GAGACACTTTTCTGAATCCTCTTGTGAGTTGCACCTTTTAAATACAATTGAGGTGACACTG
TTCTTCATGGTGACACTGGTCTTTCCCAAGAGGTTTCAGCTAATTCAGTCTATCAGATT
TACATCAGATTTTAAATTTGCTTCAAACCTTGGGTGCTTGTATTCAAATTCATGCTTCAT
AGAAAAATGCATATCAAGTTCAACAGTTGACTAACTGCAGCCACGTTACAGTACCTGCC

TABLE 1

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CGGCGGCCGCTCTAGAACTA

Sequence 701

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAAAAGGCTGATACACAC
TGACAGATTTTGTAAACAAGGGACATTTAAACTGAGCTGGTAATAGACTTGATTTCTGGT
GTTGCCACTCAATAGGCATGACTAAATAGTGTACCTCACTGTTCTACTTTTTATAATTAA
AATTTTAGAGGAAGCTGAGTTCCTTGATTTAACTACAAGTTAGAGACTCAGCCCACAAGC
TTTTTTTTTTTTTTTAAATATGGTTTCTTTTTTTTTTTTGGAGACGGAGCCTTGCTNTG
TCACCCAGGCTGGAGTGTAGTGGCGCGTCTNTGCTCACTGCAATCTCTGCCTTCCCGGTC
CAAGTGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACCGGCGTGCACCACCAGC
CCCAACTAATTTTAGTATTTTAGTAGAGACGGGGTTTCCCATGTTGGTCAGGCTGGTC
TTGAACCTCCTGACCTTGTAAGTCCCACCTTGGCCTCCCAAAAACGCTGGGGTTACAGG
CGTGAGCAACCATGCCAGCCTTTTTTTTTTTTTTTTATTT

Sequence 702

AGGTACGCGGGATATATNTAAATTTAAGAAANCATCCCCGGTAATATGGCTCTTCATAAT
TCTAAGACTAAGGCTGGNGTAGAAACCTAACCACTACCTTACAAGNGAAGGGGGCTATA
CCATGGGGTAAGCCAAGTTTGAAATTTATGGGGAATCNTACCAACTTGNTTAAGGGGG
CCCTNGGATTTGGCCTNGGGGGCCAAGNNTTTTCTGTATTTTTATAAAAGGTGATCTTN
CATNGGTATTCCCTTGGTTTACCTTGGATAAGGGGGGATTACCAATGCCTTCTTAAGGAA
AAAAATTACCTTATTTGGGCCTTGGGGGGAAGGTAGGGTNGGGCTTCAATAGCCCTTGG
TAAATTCTCCAAGCCACTTTNGGGGAAGGAAGGGCCTGGANNGTTTTGCCGCCCACTT
ACCACTTCCAAGCCCTTGGGGGGTGAACCAAGAAGTGGGAAGGAACCTCTTGGCCCCT
CAATATNNAAAAAATNAGAAAAGGNAANATTNCACCTATTCTTACCANAACCCCTAAG
NACCTAATTTTTAAAAAATACCAAAAAGAATTGGCCCTNGTTTNTCAAAAACCACTAA
TTTGGGAAATAAANAANGGGGTGGAAGAATTATTTCTTTAACCCNNATNGGAATAAAA
ATNNATNNNATTTNGGGGNTCCCTTGGCCCCNGGGCCGGGCCCGCTTCTAAAAACNTAAGN
GGGGATCC

Sequence 703

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGNCGGGGCAGGTACTACTGACTTACCTGCC
ATGGGCTTTCTCAAGACAAGTCCTGCAGGAGAGGCACACTCACTTCTAGCGTCAACTATT
GAACCAGCCACTGCCTTCACTCCTCATCTCTCAGCAGCAGTGGTCACTGGATCCAGTGCT
ACATCAGAAGCCAGTCTTCTCACTACGAGTGAAAGCAAAGCCATTATTCTTNACCACAG
ACCCCAACTACACCCACCTCTGGAGCAAAGTGGGAACTTCAGCTACTCCTGAGAGCCTT
TTGGTAGTCACTGAGACTTCAGACACAACACTTACCTNAAAGATTTTGGTCACAGATACC
ATCTTGTTTTCAACTGTGTCCACNCCACCTTCTAAATTTCCAAGTACCT

Sequence 704

CCGCGGTGGCGGCCGAGGTACTGTGAAAGAACTAGCACTTTGAGCAGAGAACAAATGCCT
TACTTGAGTTTCCCCTGGACTCTATCCCTATTCAAAGATGCTTGGTTATACCTCAAGAGG
GAAGCAATCCAGACCAACTCCTATGACATGACAGGCACTCAAGCCTGATGAGGCAGAAAC
CTGGCAGCTGTAGATGTTGGAAAGGATAATTTATGTGTTCAAGTGAAGTACTAGGATTCTAAGG
GCTAGATGCTAGCTTCAAGCACGGCTGGATCTAGGAAGCCCTTTTGCTCTCCCTTTTCT
TGGTCTACTTTTCTCTGTAGGCAAGTTCATTCTTCTAGGCAAGTTCCTCTGCATGTGGC
AGCAATGATGGACACTGGAATCTCTGGGTATTCTAGAGTTCTTTCAGTAGCAG

Sequence 705

CGGGCGGGTACCTTACCACCCCATCCCCAGAGCATTGCATGGGGTGTTTGGCACACAGTA
GGTGCTCAATGTAAACGTGTGCACTGTGGCATGTTAGAGCCAGACAGGATCTCATCCAGC
CCGTTCTCTGCACCCCTCCCTCCCTCTCCAAGTAGCCCTGCTGTGGGTTCAAGTAAAGA
GGGGCTGGGGCGCTGGTCTGATTGTGTGGGTGATTTGGGGAGATCTCTTCTCTTCCGGA
ACCCCAAANGTTGGGACAAACACAGCAACAAGCCCAGCTCCCTGAATTTCAAGTATTCA
TTTGTGGGATAAAGGAGTGAATGATAAAGTGAAGGACGACTGTCCCCGCGTACCT

Sequence 706

NGGTTAANTGCCGCCNCTTGGCCGTAATCATTGGGNCATTAAGCCTGGTTTTCCCTNGTG

TABLE 1
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TGAAAAAATTTGTTATCCCGCTCCACAATTTNCACACCAAACATTACCGAAACCCGGGA
AGNCAATAAAAAANTGGTAAAAAGCCCTTGGGGGGGTGGCCCTTAAATGAAGGTGGAAGC
CTAAACCTCAACAATTTAAATNTTGGCGGTTGCGGCTCAACTTGGCCCCCGCCTTTTNC
CAAGANGCGGGGAAAAA

Sequence 707

GGCGATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACTGAACATCCATGGCAGACGCTATT
CTTTCCCTCTTAGAGATGCAGACACTGAGGCTCAGAGAAGTTGTCCCGCACCCAGTATGT
GATGGAGAGGTAGAGGGTAAAAACATCAACTGAAGGATTTAGCATTGGGGAAGAAGGAA
GAAGCCCCAAATGGAGTAGATCAAAGGCTCCCCCGTGAACAAATTTAAATTAAGGAGAA
AGAAGCAGAATTCAGTCTTCTCCACACCCATAACCAAACAGCTCCTATGAAGGCACCAAG
CCTGACGCTCATCCCAATAAAAAGGAACGATCTGGAGAGAGGGGCAGCCGCTGGTGACAA
GAGAACCCCCCAGGCAGCCTCGTCATCTGGCCAG

Sequence 708

GGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACTTTTGGGGGACAGATATCATAT
AGGGGATTGATGTCAGTGACCAAACGAAGTGACCATTACAGCCCTTTNGAAACCTGAGGT
GTAATTTTAAAAATGAACCTCATGACTTTAATAGTCATAGACTCAAACCTGAGTTGATTA
TTATGAATTAGTTTATGGGAGTCTCAATATGTGAATATGATGGAGACAAAGTTTGGAAAT
CAGATAAATCAAGTCACTGTATTCACCTCTCTCTCTCTCTTTGAATAGCCTTATCTTTG
CCTATACACACAAACAGTGACGCCATCAAAATTTTCAATTTACAAAATGTTACAGTCAT
GCTTCTTCCTTGACTAAACACTGGGGTTGCTGCCAGTGGTAATTGGCTTGAAACCAGCTA
ATTTTATATATCTATTTAGTCTGGATATTCTAGATGAGTGGGCACTATAGT

Sequence 709

ATTGGAGCTCCCCGCGGTGGCGGGCCGCGGGCAGGTACCCACGTTTTGCTCCCACTCCTT
GACCGCAGGGGCTCGGACACAAACCCCTGTCACCAGGAGAGTCAGTCAGCACTACTTGGG
AGGGCTAAAGGGAAATTTGAAAAATAAATTCCAAAGTTTGGAGTAAAAAATTCAGTGT
TGATTTTATATTCTTCCCTTTCTGACACAGCCTAAAGCGTAGGGGGAACATGTGTTTAT
CTGTGGGAGATAAACAAGATGGAGTCCCAAAGACTTTAACAAAATATTTTTTAAAAATC
CACTAGAATAGAAAATACATTATTTAGATATACTTTATGCTGAGAGTGAGTATATATGCT
TGTCCTATTTAACTTGTGAGAAAAAGTGGTATCCCTTGATACATTTAGAAATATGGGGG
CTATCTTGGTTTCATTGNGGGGGGTGGGGGCAGAAGGAGAATAAATGCAGGATGCCCTTGT
TGAAAGGAATCTTAGCATGGCCACAGGGGACGTTTCCAGTCGATTACCAAGGAATGCCA
GCCT

Sequence 710

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCGGGCAGGTACCCACGTTTTGCTCC
ACACTCCTTGACCGCAGGGGCTCGGACACAAACCCCTGTCACCAGGAGAGTCAGTCAGCA
CTACTTGGGAGGGCTAAAGGGAAATTTGAAATAAAATTCCAAAGTTTGGAGTAAAAAA
TTCAAGTGTTGATTTTATATTCTTCCCTTTCTGACACAGCCTAAAGCGTAGGGGGAACA
TGTGTTTATCTGTGGGAGATAAACAAGATGGAGTCCCAAAGACTTTAACAAAATATTTTT
TTAAAAATCCACTAGAATAGAAAATACATTATTTAGATATACTTTATGCTGAGAGTGAGT
ATATATGCTTGTCTATTTAACTTGTGAGAAAAAGTGGTATCCCTTGATACATTTAGAA
ATATGGGGGCTATCTTGTTCATTGTGGGGGTGGGGCAGAAGG

Sequence 711

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACGCGGGACGGTGAGCCGGAG
GAGTCATGTCAGAGGGGCGAGCAGGAGCGATTCCGTGCGCAAACAGGTTATGAGTGCCAG
TGAGCCGCCTTAGATAGAAGCATCGTCAGCACTTTATTAATGATGGATAGNGAGAATAAA
CCCGAAAATGACGAGGATGAAAAGATAAACAAAGAAGCACAAGACTTGACAAAGCTTTCA
TCCCATAATGAAGACGGTGGGCCTGTATCTGATGTGATAGCAAGTTTCCCTGAGAATTCT
ATGGGCAAAAGAGGTTTTTCAGAAATCATCGAACTCTGATAGTGTTGTTATAGGAGAAGA

Sequence 712

NCCCGCNGTGGCGGCCGAGGTACTCTTATGAGAGGAACATTAATTTGCAATTATAATG
CAAAGAAACAGGAGACGATCGTGAGAATAAGCAATGTCACACACATTTCTCTCCAAACTA

TABLE 1

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TATGTATCTTGTCCCTTAAATTCCTTGACGTGTGTGTGGGGCCTGGGTGGGGGGTGTGGG
TGTGTGGTGTCTAAGGGCCTTTCTACTAATCCAATACTGGGTATCTGTGAGGCTG
CTTATCTCACTGTATTTTACTGCTTCTTGCCCTTCTGTTTTTTTTTAACCATACT
CAGGTATGGTTAAAATGTAAATGAAAGAA

Sequence 713

CCGCGGTGGCGGCCGCCGAGCAGGTAAGTGGGGCTGCACAGGCTGTGGCAACACTGGCTA
GTCAAAGCCTGGAAGACCTGTGAGCTTGAACCTCTTGGGTGCCATTGTTCTGTTGGT
TTCAGCAGTGAGACTGAGAGAGCCTGTTCTGTTTAGAAAAGCCACAGTGGTTTTCTAGGT
AAAGTCTGCAGGAGATGTCACTTGGTGCCTTTCAATACGAGTTTTCCACCTGCATTTT
GGAACCATTTAGGGCCTTTTAAAAATTTAATAAGTCTCTTAAATATTTTATAATCTA
GCTTCTGAGACAAGATGATTTTAAACAGTTATATGCTCTAAATTAATAATTTA

Sequence 714

AGGTACCGTGTGAGCAGGTGGCGTTCACCAGGGGTGAGACTTTATTGACAGTAAGTTGCC
TCTGCCAAAAACGCCCTCATATGTCTGCTGATGTTTGAATTNCNNCCNNATGGCAGGAG
GTTTTTGGTCTCCCGAGNTTTAAAAAAATTTGGTTAAAAATAACCTGGGTTTGGTTN
TTTCTTTGNTATGGGGAAGGCCCTTCAAGNAAGNGGAAAATAAANAAAAAAGTAATTA
NANCCTAACCTTCCTTAAGGGGGAATTAATTGGTAATTTCAAAATTTTTTGAATGGCC
TTANCTTTNTAATTTTTTTTAAATTTTTTAAATTTTGGGANGGAAACCAAGGGGGGGG
TTTCTTNTGGGCCTTTCTTGGTTTGGCCCCAGGGGGCNTGGGGNANGGTTGGCCAAGG
NCCAATNTTNNGCCAAAATTTCAAACCAAGGGCCCTTTCNAACCTTTGGGCCAAGNTC
CCCCTTTCAAAACCCCTTTCNNCCTTGNTTTGGGCCCCCCAAA

Sequence 715

CCGCGGTGGCGGCCGAGGTACCGTTTTATGATGATAACATAACTTTAATGCTCCAACCTG
AGAAAGATAAAATAGACTAAGATGACCATTGAATGCAAACAGAAAGTTCTAAATGAACAA
TCAAGNCAGGACCTGGAAATTCAGGTCCTGGTGGTTGGAAAANTAAATTAATTAATA
ACCAANTTTCTTGGTTTTTCCAAGGAAAAANTGGNTAAAAAAATTAAGGTNTTTAAAT
AANCCCCAGGGAATAATTTCAAATTCAAATTTAATAAAAGGCCTTAAATTAATTAAT
ATTTTTTGGCATTTCNAAGGCCCAACCTTAAATTTGGCCTTANCCAAAATNGGTTTTT
GGGTAATTAACCAGGGCCAAATTTNATTAATAAAATTC

Sequence 716

AGGTACACGATTATTTACCATCCAGGTATTAAGCCTAGCACCCAAGAGTTTTTTTTTG
CTTCTCTCTTCCCTCCCTCAACCTCAAGTAAATCCAGTGTCTGTTGCCNCCNTNCTT
CGGTANNAACCAAGGTGGTTTTTTTTTAAATTTTCCACCAAAAAAATCTTCNCATNC
AACCTTCTTCTTTTCAATTTTTTGGCCTTNNCCTTAAACCGNAACCTGGAAAAACCT
TNCTGGGTNTGGCTTCCCCCAGTAAAGNACCAAGGAAANTTTTAAATTTCAATTTT
TTAATTTCCCCGGGTTTTTAAAAAAGGGTTNAAAAGGGAAAGGNTTCTTAACCCCCA
AGTGCCCAAGGGGAAAGNTTGGGGTTGGGGGGCCTTCAACCNAATTNCTTAANTTAAA
AATTTTGGCCCAAGGGCCAAACCTTTNNTTTGGGAAGNGAAAGGGGGGGCCCCCGGA
AAGGGGGCCCCGNAAGGGTTTGGGGGAAANTTCAAACCAATTTGNTAAAGGGGGTTTT
TGGGGGGAAAAAG

Sequence 717

CCGCGGTGGCGGCCGAGGTAAGTACAATAAGGACAAATATTCAAACATTCTGTAAAGTAA
AATAAGACAGTCAAAAAGGAAAGCTGTATAATTACACTCATGTAAAAATATTTAGTCAA
CNCTCACAGGANAACCAAGGTGGTCAATAGGTTCTCAAGCCAGGTGGCCACCCCAAAG
GAATGGTTAAACCAAGGTTCTTCTTCTGTTTAAAGGTTCTGGAAGGAATTAACCAAT
CCCCAAGGAGGTTTNTCTTTTTGGTTTTCTTAACCTTCTTAAAGGGGAGGAATTTTAAAG
GGGAGGTGGTTAAAAANCAACCAAAAAAGGGTTTGNAAAGGGNTTTTGGGGGAAGGNTT
GGGAAAAAANGNTTTTAAAGGNA

Sequence 718

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTGTCTCAAATCTT
GGATAGCTGTCCCTCATGTACCTAGCTGCTGAGAGCTTTGTGATCCTAACAGGTGATGA

TABLE 1

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CTCAGACCGACACTGCATTGGTAGGAATTCACAAATAGGTGCCTCAATGTGCCTAGATT
GAAATATCAGCCTTTCCAGACTGACCTGATGGGTTGACTTCAGGTGTGGTGTAAACACC
TACATTTTAATGTAAACATTTCAAGTGAATCAATGAGAACTATCATTCTGCTTTAATCAC
CATGAGTTCTGAAATAACAAAGGATTTGTCTGACATTCATTCTAAGAAATTCATTCTTAC
CTGACTAAGAAACTTTTTTAACCCGGCACAATAATAAGAAATGACCTGTNAGTACCTGC
CCGGGCGGCCGCTCTAGAACTAG

Sequence 719

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGACTGTCTCAAATCTTGG
ATAGCTGTCCCTCATGTACCTAGCTGCTGAGAGCTTTGTGATCCTAACAGGNGATGACT
CAGACCGACNCTGCATTGGTAGGAATTCACAAATAGGTGCCTCAATGTGCCTAGATTGA
AATATCAGCCTTTCCANACTGACCTGATGGGNTGACTTCAGGTGTGGNGTAAACACCTA
CATTTTAATGTAAACATTTCAAGNGNAATCAATGAGAACTATCATTCTGCTTTAATCACCA
TGAGTTCTGAAATAACAAANGATTTGTCTGACATTCATTCTAAGAAATTCATTCTTACCT
GACTAAGAAACTTTTTTAACCCGGNACAATAAANAATGACCTGTAAGTACCTGCCCCG

Sequence 720

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCTGTGCTCCAGGTGTTTACA
GCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTGCGCAAATGTTGCC
TGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTTCAAGATAACCTCAGAGTGAGCTCGCTG
GAGGGGCAGTTCCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTG
ACTGCATTACACCACTCAGTATATGTGAGGGAGGGGATGTGCCTCTGGCCACGTGGTTAC
CTTGCAAGTGCACAGCCTGTGGTCATAGA

Sequence 721

CCGGGCAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCTGTGCTCCAGGTGTTTACA
GNTGCTTNGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTGCGCAAATGTTGCC
TGTGCCCAACTGGGTTTCCCAAGCTATGTGAGTTTCAAGATAACCTCAAAGTGAGCTCGCTG
GAGGGGCAGTTCCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTG
ACTGCATTACACCACTCAGTATATGTGAGGGAGGGGATGTGCCTCTGGCCACGTGGTTAC
CTTGCAAGTGCACAGCCTGTGGTCATAGAAGGGGGCTACAGCTCACGCATCGTGGGTGGA
CATGTCTTGTCTCTCAATGGCCCTGGCAGGCCAACCTTTAGTTTCAGGGCTACCACCTG
TGCGGGGGCTTNTGTCATTACCCCTGTGGATTAATGCTGCACACTGNGGTTATGACT
TGTACCTTCGGCCGTT

Sequence 722

GGAGAGGAAATGTGTAGGGGTGAGGGATGATACAAGAAAGCCAAATCCTCATCTTCTATA
GTAGAGAGTCAGCGGATAAAACCTAAAAACAATACATCAAGAAATACTTACACTTATGGA
AGGAAATACCAGAAAGTTAAAGGGGTTACTTCTGGGACATCAGACACCAGACTGCAGGGA
AGGGCTGCCTCTTGATTAACAAGCTTCCAGTATAATTTGCTTTTTAAATAAGGTCCAT
GCATTATTTTAATAAAATTANGCTGGGCGTGGTGGCTCAGGCCTGTAATCCCANCACTT
TGGGAG

Sequence 723

ATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACTTAAGCAAGCTGTGTGACCTA
GAGCACAGTGCTTTGAGTTTTTGAGTCTTAGCTTCTGTGTCTATAAAATGGGGTTCACAC
AACTCACCTTACAGGGCTGTAAGATTAGATTACACAGAAAATATATTTTTGGCTGTGGG
GGCTGGAAGTGTTGCTGATTAGCATTTGAAATCCCATCCTGTGGGTGAGAAAACCCACC
TTATGACTTGGTGGGAAACAAAGCCAACCTCCCACTGATGAAGCTGAAAGTAGCAGAACC
TTGCTTCTACTGCCTCCCTTGCACTAGAGGCAGGCACAGGACTAGCCTGTCAATTGGAT
GCAAATGCTCCAGGCCTGAATCACAACCTGGTGACTTGACCCCAAGTCTATTA

Sequence 724

GGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCTGAGACTTCTGGAGAG
ACCATTCAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGA
ATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCAAATACCGACTTNATCATGCTGAG

TABLE 1
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TTGTGTGCAGCTGCAGCGGATTCTCTGAGACGCTTGTCTATCGCATCTGCCNGGGCAAG
TNTCACCTTCCCTGGGATGTNCCCTTGACAAGANACAAGGGAGGAANGGCCCTTAANGAT
CCTANCTGGGGGGGGA

Sequence 725

TAGGGNGAATTGGAGCTCCCCGCGGTGGCGGCGCCCGGGCCGGTACCCATAAAAAATTAAA
AACTATTTTAAAAATAAATTCATTTGAGCCACTCCTTCAAACCACCCAGAGTGGGTAG
ACGTCTTTTCGTGCCTCTAAGAAGCCCCATCTCTATTCTGCGTCTCACCTTGCAGGGCTGC
TCATCTGAATCCTGAAGATGGTGGACACCCATCTGCTAGGACTGAAATGAATAGGACAGA
GGGAGGTGCAGAGTGAATGGACCATACTACCTGTCATCTTGGCAACGTGTGATTGAATAA
AACAACCTCTTTAGAAGTTTGATAGAGTGATTTGATAATGTAATTTACAAGTGATCATT
CTTTTTA

Sequence 726

GGAGCTCCCCGCGGTGGCTTTTTGAGTCTGGACAGGNCCTCTGTTTTGCTTTAAAGTTAA
GAGAGCTAAATAAATGATGGTAAAAAGATAATAAAATAGAACATGAAGGGCTGTCAGTCA
GTGTAGGTATTTCCATCCCTCACTTTTCAAGTGAGGTCACGGAGGCTCAGAGCGATAAG
GAGACTTGTCCAAGGCCACACACCGGCTGGTGTCTAAGCCGGGACTTGAACCCACGCAGT
CTGACTCTAGAGCCCAAGCTCCTAACTATGACATCCTATTTGATACACTGTTTTACTGGA
GAAACAGATCATTTGACAGACATTCTTTCTGTTAGCAATTTGACAACCTCTTCCCCAGTT
GTCTGTACCTGCCCC

Sequence 727

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGCCCGGGCAGGTACGCGGGCTA
TTCTCTTACAGCTAGGACCCAGCGTTCTGGGCAGAATAGCAGGCAGCGCAGTAGCTACTG
AGATTATAAGTGGTAGGTTTATGGAGCTGTGACCACAACCTCTCCACAAGCCAGTGCTGTC
TCATGCAAGCACTCTCAGTGTCCAAGTGCTGAGTGTGTGAGTGGTCTGGGCTTTGCAGGG
TCGGCCAAGCTCTTGGAAGAGCAGGCTTTGTTAGCTGGGGAGTCATCGCTCCATGCAGGC
CCTGAGAATGGAGCATCCTGAGTGGACTGGTAGAGATGGGGCATGGGTCACTCTGAGGGT
TTGAGCTACTTCTGCTATTTTTGAAATTCTGGTTTGAAGTGCAGGATCGTGCTGAGTTTG
GCACAGACTAATTTCTCTGTTGGCAGCACATGATGTATCAACTCATGTGTCAGTTGGTTT
G

Sequence 728

CCGGGCAGGTACTACCTTCTCTGCTACAAGTCGAGCGAGGAGCCCCGCATGAGCCCTGAC
ACCTGTGCCACCATTTTGGAAAAAGCTGGTCTCGATAACTGGGCTCTTGGAAAAACAAAA
GTGTTCTTAAGTATTATCACGTGGAGCAGTTAAATCTAATGCGAAAGGAAGCTATTGAC
AAGCTTATTTTGATTCAAGCTTGTGTCAANAGCATTCTTGTGTTCAAGGAAGGATACCAA
AAAATACAGGGAGGAAAAGGGAAAGGAAAGCCGCTTATAATAATACCAGTCAGCTTGCAA
GGAGGGACCACCTTGTGAGGGAAAACAANAAGAAAAGGAAAATTTGGTTTGGACCATTG
AAAAACCCCAGCANTTAACCAACCCAATTTCAAAAACTTTCTTGATTGAGGGAATTTT
GACTTACCAAGAAAAAACCTTTGGNAAAAATACCCANGGGGGGNTCCTGGGNAAAGGGNA
GGANGGGAGCCCAAAAAANAATTTGGANAACCCCCCNANGACCGACCCCCCNNGGAAACC
CCCA

Sequence 729

CCGCCCGGGCAGGTACTTTCTTTTTTTTTTTTTTTTTTTTTTTTACGGAGTCTTGCTCTGTC
ACCCAGGCTGGAGTGGAATGGTGTGATCTCGGCTCACTGTAACCTTCGCCTCCCAGGTTT
ACGTGATTCTCCTGCCTCAGCCTCCGGAGTAGCTGGGATTACAGGTGCACACCACCATGC
CTGGCTAATTTTTGTATTTTGTAGAGACGGGGTTTACCATGTTGGCCAGGCTGGTC
TTGAACCTCTGACCTCAAGTGATCTACCCACCTTGGCCTCCCAAAGTGCTGGGATTATAG
GCATGAGCCACCACGCCAGGCCCACTCTNTAAATTTTGACCACCCTGCCTTGAGTGGTCT
TCTAGCACCTAACCTCTGTCTAACCTTCGAGAGCTTTGCACTAGCNATTCCTGGGGACC
AGCTATGGTTGGTATCTTCTCAACTTTCTAATTTTTTAAAAATATTATTATTATTATTA
TTATTTTAAAA

Sequence 730

TABLE 1
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TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTGTGTGGAA
AAGAATGCTTGCAAAGCTTGTCACCCCTCACGAGAATTCCTCTGACAGACATTTGCCTTTG
ACAGTGAAAACAGATATTAAGTGAAAGGAGAAGAAACCGAAGAGCATCAGAGGGGACGA
CTGGGTTACTTAACTGTTGGGGAGCAATCTGAGGAGTTGGTTACCAGAGAACTGGCGAT
GGCGATCCCGTGAGCAACATCTCTCAGACCCATTTTAAATGCCGGGGGATACTTAATCAT
GCTGAAAAACAGCAGAGCCCTGAGGTTTTGGACTACATGTTGCAGAAAGAA

Sequence 731

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTACACCTGGGACAAA
TACTTTTTGTGAAGNCAGGTAAAGCCTTTGCGTGCAATATAGCATCTCTATGCAATGCA
NCAACTCCTCGTCTATCGCTACAGTAAGAAAACAGCCACGGGTCAGGTGTTGNGGCTCAC
ACCTGTAATCCCAGCACTTTGGGAGGTCNAGGTGGGTGGATCACTTGAGGCTAGGATTTT
GAGACCAGCCTGACCAACATGGAGAAACCCCATCTNACTGAAAATACAAAATTCCCGGG
TGTGGTGGCNGCATGCCGTGAATCTCAGCTACTCGGGAGGCTGAGGCAAAAGAATTGCTT
GAATCTGGNAGGCGGNCGTTTGNNGGTGAGCCAAAATCGTGCCATTGCACTCCAGCCTG
GGCAACAAGAGCGAACTTTCGTTTCAAAAAA

Sequence 732

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTAGTTATTT
TAAATCCACTCATAACTTATCGGCCAAAAGTAGTCACATGGCTCCACCTAATCACAAGT
GGAGCGGGAAGTGCAATCCTACCTTGCTGGGGAAGGTATAGAGATAGACCAGCACTAAT
GACTACCACACTTCGCTAAGGTCACATAATAAATAAGCATCAGACATCAGGTGTGGTGGC
TCATGTCTATAATCCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACTTGACTACAGGA
GTTGGAGATCAGCCCGGACAACATAGTGAAACACGTCTCTACTAAAAACACACGCAAAAA
AATACGAGGCATGGTGGTGCATGCCTGTAATCCCAGTTACCTGAGAGGCTGAGGCAAGAG
AATCACCCTTGAACCCAGGAGGCAGAGGTTTGCAGTGACCCGATATTATGTCACTGCAAG
TNCAGCCTGGGTGACAGAGCGAGACCTTGCTNAAAAAAAAAAAAAAAAAAGAAAA

Sequence 733

CGACCACTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTGCTG
TGGTTCAAGCCATTAAATTACATCACAAGGTTTGGTTTCTGTATATATTTCTCTGGG
GCACTTTTGCTANGTTGGCTCTATCCTGAGGCAGNCTCTCTCCTCGTGGNAACCAAGTGG
CTCTAGCAGCCTCAGCTTTATATCTCTCAAGAGTAAGTCCACCGTCACAGAGC

Sequence 734

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACACACCACCACA
CCTGGCTAATTAATTTAAAAAAATTTTTTTAGAGATGGGATATCTNATGTTGCCAG
ACTGGTCTCAAACCTCCTGGCCTCCAGCAATCCTCCACCTCACCTCCCAAAGCCCTGGGA
CTGCAAGCATGAGCCACCATGCCAGCTATATTTTCTGTAAATTGCTAATGANAATGAAA
CATGTATGCTGTGGACAGAAGCCTTGTTGGACCTAGAGCCCATGCTGGGTCTTTGCCTT
AATAAACATAACTCTGGCATTACATATATAATTAACAGCCTCAAAGANCATGTTTCTTT
ATTAACTCTGACTGTTTCAGCATTATTTT

Sequence 735

GCGAATTGGAGCTCCCCGCGGGGGCGGCCGCCCGGGCAGGTACTACTGTGTCCTTTAGAT
CACTCTGCCTTGATCACTCTGTCCCGTCACTCTGCTATTTACCTGNCAGNGAAATACCT
GGTATCGTCTGCCAACGTGAAGCATTGAATGCTTNATACGTCTCCATCCTGATTGTTA
GGCTTTGAATGCTGAGAAGTATCTGCACTTTGTGGTCA

Sequence 736

CCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAAGTACCCTTAAGCCCTGCTCCT
TTGTAAAGTCTTTTTGGATTGTCATCATCAAGAGTCAGTNGATCTCCANCTTCTCAGAAC
TCACAGGGCACTGTCTAGGCATTGCTGACCGTCTGCAGTGTGAGATGGTGACTTCTGT
ATGTGTTGTGTTTCCCGTTAGACTCTAAGGTTTTTAAAGGCGAGACTCACTCCTGCAGAA
GCACATAACACAATGCCAAACTCTTATTTACGGAGGTCCTGGCGCATTGTCAGCTTTTGG
TAAATGCTTTTCTTTTGTGAATACTTATCTTCTGTGTGCCAAGATTTGTGTTAAGTGCT
AGAAAAATGTGGGAGGTCACCGCAGACCCTGTTCTCATGGAAGTATGGTGTGTAGTGGG

TABLE 1

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GTGNGGATTAACATAAAATAAAATGATGCGCAAATGAACACAAAATTCAAATTGATGATGT
GTACCTGCCC

Sequence 737

TNTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCCCTGAGCAGTCAAG
TGGATGCCAGACCAATGGCCAGTGCTAATATCAATGCAANGATCCCAATGACGATGATT
GGAAAAAATTCAATGGCAGCAGTGACAGGATCTGTGCAGCAACAGCATCTGCATCTGGT
GCAACAGGACTTATTTTCAAATCATCAAGGCCAAAAAGCGATCGGAATGAGAAGGGGGCT
TCAACAGCAGGCGGATCATTTCCTCCCATGGTGACTATTTTCAAGACCTCTGACATCCGGC
TCCGCCTCCACCTCTACCTCATAATTCCCGAGTCCCAAAAATGTAGATGGCACCACGGAA
GAGATAGTAGGCCACAGTGTTACTGGCTTCCCATAAACACAGCCCTTCTCTGGCTCACAC
GGGGCATGACCTCCCGCGTACCT

Sequence 738

AGCTCCCCGCGGTGGCGGCCGAGGTACATGTAGTTGGATGTCGAGGTTNGATTAGATTCT
GGGGTTGGTTTGCTTGTTTTGGTGGATNGTTTTNTGAGTCGACTTTACAGAGGGTTGTTTA
TCCACCAGAAGGCACATGTGCTTGCTGTGCTTTTTTTGTTATTGTTTTGAGGCAGAGCC
TCNCTCTGTCTTCCAGGCTGGAATGTAGTGGCACAATCTTGGCTCACTGCAACCTCCACC
TCCCAGGTTCAAGTGATTCTCCTGCCTCAGCCTNCCAAGTAGCTGGGATTACAGGTGTGT
GCCACCATGCCCAGCTAATTTTTGTATTTTCAGTANANATNGGGTTTTTTGCC

Sequence 739

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGCAGGTACACTTCCACGA
GAAGAATTAATATTGTAGTGTTAGGAAAAGTAGCAATTTAACTAAACAGCATCAAGTTAC
AAACCAGGAAAGTGATTTAAACTAAATGCTGGCTTATCTTTCTGAAACAAAGCATCTAA
ATTTGACAGTCCAAAATGGCACTTATTGAGTGTCGTGACAATACATGCTGACAAGCAGC
ACACCTCTTTTTTTGTTTTTTAAGACGGCATCTTGCTGTCAACCCANGCTG

Sequence 740

CCGCGGTGGCGGCCGCCGCGGCAGGTACCTATATAAAAATTGATTTAGCTTCTACACTCA
AGTAATTATAAACAGGTTTNTCTTTTGGGACATTTGACAGTTATGTGAAAGGTGAGTCTT
CGTTGTGTAGTATTGTCTGTTACACTGCAGGTGTCTAGAATTGCTGATAGTGTTCTCCCT
CTAAAGTAATGTCACCCAACCACTTGTAATTGACGATAATAAGACAGGAAATCAAGAAC
CAATATAAATAAGCAAACATTTGAAAATAAGAGCTAAAAATCAAAAATAATCTCTCTTTT
TGCTGATAATACTTTATACCTAAATAACCTAAGATTTTTTTTTTTTTTTTGGAGACAGAG
TCTTGGCTCTGTCAACCCAGGCTGGAGTGCAAGTGGTCAATCCCGGCTCACTGGAACCTCC
GCCTCCTGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGAAGCTGGGATTACAGGCA
TGCCACCGTGCCTGGCTATT

Sequence 741

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTACAGTATAAATCATGCT
CCTGCTGTCTAGAGCTTACCACCCAACGAGGGCTTCAGATAAGATCAGCAACTGCCCTAG
AGTGTGGAACCTATGACAAGGTGAGCCTGGGGTGTGATGGAAACACGGCGTGATGGT
TACCAAGCCACGCTTCCAGGGAAGGGGTCCGTGCGGGAAAAAATTTCAGAGAGGAAATGA
CATGTCAGTCAATAACCTGAAAGAACTGGNTGAGAGTTAAGCANCAGGGAACAAGGGCAC
AGTNNTCCACACAGCTTTTTGAAAGATCATGTTGNTTATAGTGCAAAAAATACTGAAT
ATGGGAAACAATTTGTTATTATTTTATAGGAGTNTTGCTTTGTCCCCCAGGCTGGAGTGC
A

Sequence 742

ACTACTATTGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGGGGGGAAAA
AGAGTTACAATTTGCCATAAAGAATGGAGAGAACAGAAATGTANCTTTTATGCTGAAAA
ACAAAATGCAAGGGCAATCCAGTTTCTAATTCCTGTGCCAAAGCTGCTGTTCTTGATGAC
CTCGGTCAAATCATTTAAATTCTCTCAATTTGTTCAATATAAAAGTGCTATTAACCTGCAG
TTCCTTCAAATACTATCCAATCAATGTTGGCTACTTGATTTTCA

Sequence 743

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTATTCACAGGGTATGCATAAA

TABLE 1

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CCAAATATACAAGAATTTAATGACAGCATTATTTGCAAACAGTGAAAGATTCTGAGCAAT
CAAAAGGTTCACTACTACAGGCATAGGTCTATAAATTACTACTGTATGGAATACTATGCA
GCCATTAAAATAATGAGGAAGAGGGAGAGTGCCCTGTATGCACTGACATGGAAAGGTTTC
AGTATATGGTAAAAAGCAGCTCATCTTAGAACAGATTTTATAGTATGACCCCACTTGTGT
GGAAATATTTTGTGATGTGCCACTCAGTGTATACGTATTCATGAGTGCATATACAAGTGT
GTGAGAAGCAATGTAAGTAACTGTTTCACAAGGACCCCCCTTTAAGAAGGCAGAGGGGA
TCGGGGGATATAGAGTGAAGGGATGATTTTGTCTTTTCTCTA

Sequence 744

CCGCGGTGGCGGCCGAGGTACGCGGGAGGAAAGGGCTGTGTTTATGGGAAGCCAGTAACA
CTGTGGCCTACTATCTCTCCGTGGTGCCATCTACATTTTGGGACTCGGGAATTATGAG
GTAGAGGTGGAGGCGGAGCCGATGTNAGAGGTCCTGAAATAGTCACCATGGGGGAAAT
GATCCGCTGCTGTTGAAGCCCCCTTCTATTCCCGATCGCTTTTGGCCTTGATGATT
GAAA

Sequence 745

CCGGGCAGGTACACAGTAAGTGAAGGGCCAAGACTGACGGCTGATAGGACAGGGGTGACC
AGNGGTGGGGAGGGTAGTGGGAGCAGTCCATCCTGGAATCTGGCATTCAAGGGGCGCATT
GTCTGTGGGAGGATTTAAAAATAATAAAACCAACTAAAGGCAGTCTGCTTTTATGGTCA
CCAGGCCGCCAGCAATTCTAAATTCAGTGATAAAATATTCCTCCTCACTGGACACGAGA
AGCTGGCTTTCTCCTTATTCCCCAGTACCTTNGGCCCGCTTCTAGAACTAGGTGGGATC
CCCCCGGGGCTGCAGGGAATTTCCGATATTCAAAGCCTTATCCGAATACCCGTCGACCC
TTTNGANGGGGGG

Sequence 746

CGGTAATACTNGTTATCCACAGCAATCAGGGGGGATTAATCGCAGCNAAAGAACATTGTT
NAGCAAAAAGGGCCAGTCAACAAGGGGCCAGGAAGTCTGTAATAAAGGCCCGCGTTGCTN
GGNCGTTTTNTCCCATAGGGGCTTCCGCCCCCCCTTGGACGAGGONTACCAAAAAATTC
GACCGCTCAAAGTCANGAAGGTGGCGGAAACNCCGACAGGGACCTATNAAAGGATACCA
GGCCGTTTTCCCCCTTGGGAAGGCTCCCTNNTTGCCGCTCTCCTGTTCCNGACCCCTGC
TCGCTTACCGGATACCTGTCCCGCCTTTTCTCCCTTTCGG

Sequence 747

CCGCGGNGGCGGCCGAGGTACATCTTTGGTGACTTTTCATTACATTTTCATGGATAATTT
GGGGAGGTGGCCTGCCANCCCTGAAGCCCTACATCCCATAACACTCTGTGCACATCCA
GTGCCCTGCTCCACCATGGCAGTGCCCGCAAGGGGGTCCCAGATGAGAAGAAGCTGGCTA
AAGGGCCCTTGTCCCCTCTCAGACTCCTTCAGCGGGCTGGAGTCCCTCCCTCGCTCGATTT
CGCCCGAGAGCGTTAGGGGTTTCTAAATGCAGGCGCCTTTGTGTTGTAACGAAACTTTTA
GTTTAAGGGAAAATCTCTTTAAGCCACTGATTGTTCTGACTTGCTGAGTTTACTCAGCA
GCCTTATGCTGGCTCTGCCACTGCACAATAAAACCAAAGCANGACAGTTGCAGNTNAAAGC
AAGGGGGAACATGTTTTGCATTT

Sequence 748

GCCCCGGCATGGTACCTGTGTGGAAAAGAATGCTTGCAAAGCTTGTCACCCTCACGAGAA
TTCCTGTGACAGACATTTGCCTTTGACAGTGAACACAGATATTAAAGTGAAAGGAGAAGA
AACCGAAGAGCATCAGAGGGGACGACTGGGTACTTAAGTGTGGGGAGCAATCTGAGGA
GTTGGTTACCAGAGAACTGGCGATGGCGATCCCGTGAGCAACATCTCTCAGACCCATTT
TAAATGCCGGGGGATACTTAATCATGCTGAAAAACAGCAGAGCCCTTGAGGTTTTTGA
CTACATGTTGCAGAAAGAAAAGNAATTTNTACCTTNCCNAAAAATAAAATATNNNA
NNNNGGTACCTCGGGCCCGGTTTTNAAGTGTGGGATTNCCCCCGGGCTTGAAGGAATTC
GNTNTTCAAAGCCTTNTTCGATCCCCGTCCNANCCTCNANGGGGGGGGGC

Sequence 749

AGGTACTTTTTTTTTTTTTTTTTTTTGGNCTAACTGNNNGGAGTATTTCTTTACCCAA
GATAAGTAAAAGCTACAACCTTTAGTATAAATATGNGTCCAAGTGCCTNATAACTGCTAA
CCACAGGGATCCTGAGCTCTNATAGCTTAAACACACAGNGTNNTTTTACTGGTCTACTT
CTCCTGNAGACCTAAAAGGGCCTATAGCCTCAGTAGTTGACAAAACAACATATTAATTA

TABLE 1
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CCTCACTGATCACTAACATAACCTAAAATCCCTGCTTTTGACATTAGCATGGNANACATC
CTTAGCAGGCCTAAATAGAATGGCCTTATAAGTGGATCCAAAGGGC

Sequence 750

AGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAAAGGCAGT
CAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTG
GTCAGTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCCAGCCTGGTGGAGCAAGTCTTT
CTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGAC
ATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAG
CACTTCTACCTGAATTTACCATCACCAACCTACCATATCCCAGGACAAAGCCCAGCCA
GGCACCACCAATTA

Sequence 751

GTGTCCGGATCCTACCCGGTGTGNNGACAGTGCCTGATAGTTTCTTCTGCCTTTCTATC
CCAAAACGATTGGTCAGTTTACCCAAGTTTGCAATGCAGTTTANAATCTCCCAGGAACAT
CTCTTCTAGTAGTTGCCTTAGCCATCTTGATGTTGATTTGACTTTTTTTTTTTTGTCTNN
CAGAAAGCTCTATGCTTCATATGGACTTGCATACCAATTTTTTTGTTCTCTGTTGGTCAT
GATGGTTAGCAGAGCCTGACCTCCTGTTACAATAGAATGATCGGTTCTGGGCTACAGAC
TTGAGTCTGTTTTTTTGTGTTTTAAACCTTCCCATGNGGCAATTTGCCATATGCAAAAC
T

Sequence 752

CCGGGCAGGTACGCGGGTGAAAATGGAATAGTTTTCTAATTACAGAAAGAAAAGAAGTTG
AAGTGGGTTTTCGCCATGTTGAGCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCAGCT
CGCCTCAGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCACGCCTGGCCAAAAAT
CTTATAAATAATCCCCTTCTAATTTGCGCCAGCTTAATCACACACCAAATTCCTTTTCATG
AGATTAATCTTCCACAACCTTCTACACTTCCTTAAATCTTTGATTTTGTCTATACTTCTT
TTTTTATATTAGCAATCTACTTTAGGACAGAAATTTACTTTCTTTCTCTTGATTTGA
CCAAAGTCCTCTCTTAT

Sequence 753

TAGTTTTCTAATTACAGAAAGAAAAGAAGTTGAAGTGGGTTTTCGCCATGTTGAGCAGGCT
GGTCTCGAACTCCTGACCTCAGGTGATCAGCTCGCCTCAGCCTCCCAAAGTGCTGGGATT
ACAGGCATGAGCCACCACGCCTGGCCAAAAATCTTATAAATAATCCCCTTCTAATTTGCGG
CCAGCTTAATCACACACCAAATTCCTTTTCATGAGATTAATCTTCCACAACCTTCTACACTT
CCTTAAATCTTTGATTTTGTCTATACTTCTTTTTTATATTAGCAATCTACTTTAGGAC
AGAAATTTACTTTCTTTCTCTTGATTTTGACCAAAG

Sequence 754

CCGGGCAGGTACCTATATGATGTTGGCCATGCTCACTCACTCCTCCAACCCTCAGTTTAC
ACATCTGCAAAATGAGATACTTCTTTTCCAGTGTTGCTGTGGACATTAGCAGGCACACAC
ATTTGGTGCTTGACAAATGAGGTCCTAAGAGGTGGGTCCTCTCATCTTACGTGAGGAA
ACTGAAGCAGATTAGAAATGACCCAAGGAAACCACTCCGAGTTCAGTCTGGAGCCCACTC
CCCTAGGTTTTAATCATCCCCCAACTCAGTCCCTATCTGCTGAGGTTCTGGATCCAGAC
GGTCTTACCAAGGAACTGTCTGTCTCACCACATGGATGGTTTTCTGGCAGAGGTGTG
CCCTGTGAGGGGTCA

Sequence 755

GCCGAGGTACANACAAGGGGGCNACTGNCATGGGGGNGGNNTCTGGTCTTGATAGTCNGTT
TGGAATTTTCTAAGTCAGGGTGGGGTGGGGGGACTGTGCACGGGTCATGTGCAGACTGGA
ACCCATCTCCCCCTCGGTCTGCAAGTTAAACAATTGGGTTGTCTTCTCAGCATCTGCC
AATGTCTCTTANTCAATCTTGGATCAAAAGGGCGTTGGAGGAGGAGGCTGGGAGGGAAAT
CCAGACAGTTCTCCGCCTCTGACATCAGGTCCAGCTGTTAGCATCGTGCTGTGGGTCCCT
GAACAAGAAGCAAAGTCAGGACT

Sequence 756

AGGTACCGCTGTGTCCGGGTGGGTGGNGNGAATGCCGTGCTCCAGGTGTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC

TABLE 1
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CAACTGGGTTTCCCAAGCTATGTAAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCAG
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAACATGT

Sequence 757

AGGTACCTCTGGATATGTTACACTGAGANAGATACTTCATCACTTACATGATATTGCTCC
CCCACAAATTTTATAACCTGAATCTAGTTATAAGGAAATACTATGCAACCCAAATTGAGG
GACATTCTGCAAAACAACCTACCTGTAATCTTTTTTTTTTTTTTTTGGAGACGGAGTCTCA
CTCTGTCTGTCAGGCTGGAGTGCAGTGGCGCGATCTCAGCTCACTGCAACTTCTGCCCCCG
GGGTGCGAGCGATTCTTCTGCCTCAGCCTCCTGAGTAGCTGGGACTACAGGCACACGCCA
CCACGCCAGCTAATTTTGTGGGGTTTCACCATGTTGGCCAGGATGGTCTCCATCTCT
TGACC

Sequence 758

CCGGGCAGGTACTATGGTCCCCGGCAACCTCCCCTTCTCCTGGGAATGCTCAAATGGGA
AGGCAGCATGAAACGGTGAACAGGCAATCACTGGACAAAGTCACAAGAACTGGGCTTTAG
AAATGGTTTTACCATTAGCAGTTGTGACACCTCAGAAGTGGCAACTCTGGATCTNAATAC
CCTACCCTTNACCCTAAGNANAGGTACCTCCNCAATTTTNNCGGGGGGAAACNTTCTNNG
GAANTTNCCCTTTCCNAAAAGGGGGGGGGGGCTCTTTTTTTTTTTTTTGGGGGGGGGG
CCCCNNCNCNCCCCCCTTTTTTTTTNTNAAAGGGGGNTTNAANANANATTTCTNTNC
TCNTTNTTTNTNANGNNAAAAANTCNGGTNGNGNGTTTTTTTTTTTANAAAAA

Sequence 759

GGCGGCCGAGGTACAAAGAAAGGACTTGATAGCTATTACCTTGCTGCTATGTTTGTNCT
TNGNCTACCAATCATTNTTNTGTATACCTAGCACTGCACCAGGCGCTGAGGTTAGAGAA
ATAACTAAAACGCGCCCTTCAACCCTGATGGCAGGATAGGCAAGGTTGGCACCATCGTC
ACAGCAGGACCCTCATCGATGCCTTGGTGTGTGCCTGGCATGGNGTTTGCAGCAGTTTAT
CACATNNAATCCTTACAGC

Sequence 760

AGGTACTCAGGCCTTACTGGGATTTCTTTAAGACCTCTGGGAGGAAGTGTGAGTAGCTG
GGCAGGCCTTCTTGGCAAGCATTCTCCCTGGGTTGTGGCGGGGGCTCCCGGCCTGCTGT
GTGGCAGCTGCAGGCTCCTGGGGACCTGAAGGAAAAGCTTAACCGTTCTCCCTTCCCTTG
CTTGGCACTTAGAGCACTAGTTCCATTCCAGACATACCGATTATCTTGCCTACGTGGCAT
AGAGGCCTAGGAGCCTCCCTGGGAGGAAGAGGCAGGCCAAGGTCTTGCCTGGCTGCTTTT
AGGGGGGAAAGATGTAGGGAGGAAGCTGCCTTATGCTTGGATCTGCAACCTTTGCCTGGAC
CTGCGGAGCCTATTTGGCCAGGGGGAGGGAGACAGAAATTANACCCNANGTATTNAGGT
AATCCTTTTNTTGCCTTTGAACATTGCNCGGNGTACTTTGNAAAANAAAAA

Sequence 761

CTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGTGAAAAT
GGAATAGTTTTCTAATTACAGAAAGAAAAGAAGTTGGAGNGGGTTTCGCCATGTTGAGCA
GGCTGGTCTCGAACTCCTGACCTCAGGTGATCAGCTCGCCTCAGCCTCCCAAAGTGCTGG
GATTACAGGCATGAGCCACCACGCCTGGCCAAAAATCTTATAAATAATCCCCTTCTAATT
TCGGCCAGCTTAATCACACACCAAATTCCTTTTATGAGATTAATCTTCCACAACCTTCTAC
ACTTCTTAAATCTTTGATTTTGTCTATACTTCTTTTTTATATTAGCAATCTACTTTA
GGACAGAAATTTACTTTCTTTCTCTTGTATTTGACCAAAGTCTCTCTTATGCAAAAT
GAAAAATTACTCTTTTTCAACTTTCTTTACCAAAAATACATCCTCATAACTTTTTTTCC
ATCTCTCCTACTTACTGG

Sequence 762

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGTGAAAAT
GGAATAGTTTTCTAATTACAGAAAGAAAAGAAGGGGGNGTGGGNTTNTGCCATGTTGAGC
ANGCTGGNCTCGAACTCCTGACCTCAGNGATCAGCTCGCCTNAGCCTCCNAAAGTGCTG
GGATTACAGGCATGAGCCACCACGCCTGGCCAAAAATNTTATNAATAATCCCCTTCTAAT

TABLE 1

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TNCGGNCANCTTAATCACACACCAAATTCCTTTCATGAGATTAACTNNCACAANTNCTA
CACTTNCCTTAAATNTTGTATNNTGNCCTATACTTNTTTTTTATATTNGCAATCTACTTT
AGGACAGAAATTTACTTTCTTCTCTTGNTTTTGACCAANGTNCNTCTTNTGCAAAA
TGNANAATNNCTNTTTTTTCAACTTTCTTTACCAAAA

Sequence 763

TTAGGGCGATTGNAGCTCCCCGCGGTGGCGGCCGAGGTACATGTAATGCTCCTGAACTGT
ATGCTNGACACGGCTGTCTACNTAGGTTTTGTTCTGTGTATTTTATGACTATTTTTTTAA
AAAGTAAACAAAAAGAATTAGCTGGAAATACCAGCACAGGCAAACCCCTGGAGACAGAA
AGCAGGTGAGTGGTTGCTGGGGCTTGAGCAGGAGGAAGGGCGAGGGACTGCAGAAATGGCC
ATGGGCTTTGCCTTCTAGCATGATGAGAATGTTCTGGAATTAGACAGTGGTAACGCTTGT
TCAACACTGCCAGTGTAGTTAATGTCACTGAATTATACACTTTAAATGGCTAACATGACC
AATTTTATGTTATATATATTTTACTACCACAAAAAACTAGCTGGCACCTAAAAACATT
CATT

Sequence 764

CCGCGGTGGCGGCCGAGGTACTTGGATGGGTTTTGTGTGTATGTTTGTGTGTGCACTNGC
GTCCACCCTGTTGGGCTTAGTGAACTTTTGATTGAGTAAAGTTTCTCATCAGAT
TTGGAAAATCTCAATTACTTTTTCTTTAAATATTTCTTGGCCTTCCCCTCTCTCTT
CTCCAGGATTCCAATTCATCGATGTT

Sequence 765

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGTTCAAGCG
ATTCTCATGCCTCAGCCTCCCAAGTAGCTGGGACTAAAGGTATCCACCACCACGCCTGGC
TAATTTTTGATTTTTAGTAGAGATGGGGTTTACCATGTTGATCAGGCTGGTCTCGAAC
TCCGGCCTCAAGTGATCTGCTCGCCTTGGCCTCCCAAAAGTGCTGGGATTACAGGCATGA
GCAGCTGTGCCAGCTGGATAATTATTTAATAAATTGGGGAGCATAGGAAGCATAGTATT
TGTGAAGTGGGTAGGCAGGTGTGATGGGGGTAGGTGATGTTACATTTGGGGCATTTTGAA
GTTGGTGGTCTTCTGAGTTGAGCAGTCAGTCACTCTTCATTTGCTGCACCTTTATCTCA
TTTTAGCCAACAGACATTGAATACCTACCAAGTCTTAGGTATTTGCA

Sequence 766

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACAAGAAA
GAAAACAAATACCAAGTATTTACAGATCCAGAGAAAGTTCACAAGAATGGGAGGATGCCA
GTTCCAATGCTTTGTAAAGTCAAAAATAGCCACATTGCAAAACAAACAAAAAAAACGAG
AACGTTCCCGAGTGTGCCTCCAAACATAAAGGAGAAAATCATACAGAAAAACCTCATGT
AAGGGTTGGAACCTGAGCAACCAGCTATCCAATACAGAGGGGAATCCTCGCTTAGCTAG
GGCATGGCCTGAG

Sequence 767

AGGTACACACAGTGATTTGGGGTCCTTTTTCTTAAACAGCTTCTTTATCAGGACTTTGG
AATTCTGGGTGAGATAGAAACACTGAAACAGGGCGGAAGTTTTTCTTCTGGCTTCTTA
GTCCATGGAGGGCTCAGCGTGGAGAGGATATGCCGTGGCATTCTCCCTGGGAGACCACAC
ATGTTCCCGACAGCTCAGACCCAGACCCGCACATGCTTCTTGACAGTTNAAACCCCAA
CCGNAGGNGCTCCCGACAGNTNAAACCCCANACCCCGCGTACCTGCCCCG

Sequence 768

CCGCGGTGGCGGCCGAGGTACTTAATAATTCATAATTTAGCCATGATAGTATCTAAGCTC
ACTTTCAGAATTATTGCATACATGCCTTAGGGAAGAACCTATCCACTAATGCTTTTAATA
ACTTACATAGATTGTGTTGCGGCAAGTCAAGTTTTAATATAGAGGAAAGGGTTTATCTTA
TCATAGTAAAATAGTAGTGATGTGTTTCAATTTACTATTTGCATGGTATATTATCAAGG
CTGTAAAAGCTTGAATTTGCCTTTCCACATCTTCATTTCAAATTAATTTTTGTGAGGAC
CCAGAGAAGTGGGTAGAACCCAAATGCCCATGNGGGT

Sequence 769

GGCANGGTACAAATTCAGGGGAGGATGGAGCAGCTGCAAGCCTGGCTGGCATCCCATGCC
AACAAGGTGACCCAGTAGATAAGTGACAAGGTGACTGAGCTGCCTGGTGCTCTTGATAG
AATTTTCAAGTGTTAGAAAAATGTCTCCATGCCTTGCAATTTGTCTCTTGGGCCAAGCC

TABLE 1
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TAACTCAGATGGAAATGCAGAAATCACCCGCTCTTCTGCGTCGCTCACGCTGGGAGCTGTA
GACCGGAGCTTGTTCTAATTNGGCNATTTGGGTTCNTCCCCCGGGNNCNTN

Sequence 770

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTTTTGAGGNGGAGTCTCACTCTGTTGACCAGGCTGGAGTGCAGTGGCACAAT
CTTGGCTCACTGCAACCTCTGCCTCCCGGGTTCAAACGGGTCTCCTGCCTCAGCCTCCCA
AGTAGCTGGGACTACAGGCGCATGGTGCCACTCCCGGCTAGTATTTTGTATTTTAGTAGA
GACGGGGGTTTTACTGTGTTGTCCAGGCTGGACTCGAACTCCTGAGCTNAGGCAATCCAC
CAGCCTCAGCCTCCCAAAGTGCTGGCATTACAGGCATGAGCCACCGTGCTGGCCTCTTT
CATATTTTTTTTACACTTTTCATTTCTTCTTATTTTAAGTGNGCTGGATAGGGGCTCCAG
AACAGAATTCAATAGAAAGTTGTGACAGTAGGAACCCTTATCTTGGTCCCTGATTTTAAA
GGAGGGTTNAAAAAAAACCCCCC

Sequence 771

ACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTTGGAGAGAGGGGTTTCACTATGTTGCCTAGGCTGGTCTTGAACCTCTGGC
CTCAAGAGATCCTCTTGCTCATCCTTCCAAAGTGCTGGGATTACAAGCGGGAGCCACTG
TGCTGGCCTAGAAGATCTGTTTTCTTTCTCTGAATAATTCTTGTGACACTGTCTCTCC
CTCCATCTCTTTCTGTTTCTTTGTCTTTTCCAGCTATCCTTTTTCTTGNCTTGTC
CTCTTCTCCCTCCATCCTAAACCTTTGATCACAAGCTAGTTTCTTTCCACATCATCT
GCTCCCCTCTACTAAACGCTATTTGCCCCCACCTGCTTTCAAGCTGNGCTTGCTCTGA
GCCCCCTTTTACCACGGCCCAA

Sequence 772

NCTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCATGCTAGACAA
CCTTATGACTTGAAAACAAAATAATTTGAAATGGAAATGGCCTCAGTTCCACCCCTGG
TGCCACATAGCATAGTGAACCTGCCCTGCAGCATTGCCCATGAGTGCTAAGATCCTGT
GCCCATTTGCATGTCTTCTTAAACAAAAGACCGCCTTAGTAAGAAATTAGTAAACCAGG
GAGATAATCAACTTATCCCCAAAAGATTTAAGCCTCTCATTTTGTTTAACTTCATTGG
GGATTTTAAATAGAAAAGTAGGGCCCGGCAGGGTGGCACATGCCTGTAATCCAGTACCT
GCCCGGCCGCTCTAGAAGT

Sequence 773

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGG
ACATCCAGGACAAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTTGCT
TCTGCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCT
CCTCCAATTTGGACCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCT
CATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGT
CATCAGTTTATCAACCAACAAGCAG

Sequence 774

AGGTACGCGGGGAGTGAACGCTCTCGGAGAACCCTTTCCACGAACGTCCACTTCAAAG
AACGCGACGGAGCATTAACTCTGCCACTGACCCCTGGCCTGCCTTCGCCTCCTCCTTC
CTCCTCTACCTCCTCCAGGCGCATTACCGCCTCTCTGCCTTCGGCCAGCAGTTTCTATT
TAATCTCACCGCCAATGCCGGATTTATCGCTCCACTGTTCACTGTCAACCTCCTCGGGAC
GCCCGGGGTGAATCANACCAAGTTTTATTNCGAAGAGGAAGCGGAAGTCAAGCACTGTTT
CTACAAAGGCTATGTCAATACCAACTCCGAGCACACGGCCGCTCTAGAAGTAGTG

Sequence 775

CCGCGGTGGCGGCCGCCGGGCAGGTACACTACTGGCATAAGAGTAAATTGGTGAGAACT
TTCTGGAGGGGTAGTTTGGCAATGTGTTTCAAAAAATCTAAAAATTATTTGCCTCTA
ATCCAGCAATTATACCTCTAGAAATTAATACTAAGGAAAATCTTAAGAATATACCGTAAA
ACTTTAGTTGTAAGAAATTTTTTGTGGCCAGGCATGGTGGCTCACACCTGTAATCCAG
ACTTTGGGAGACCAAGGTGGCGGATCTCCTGACCTCATGATCCACCCGCCTCGACCTCC
CAAAGTGCTGGGATTACAGGCGTGAGCAAATTTTAAATAAGAAGAAACAGTCAACAGCAT
CAGACATAGTAGGTATGTCCAACACCATAATGGCTGAAAAGTGCCCCCTAGTCTGGCAAT

TABLE 1

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TAGTAGGTCATTGGTTTATTAATAACCGGCATGTTAAAGTTG

Sequence 776

CCGCGGTGGCGGCCGGCAGGTACAAATCATACCTCCCAAGGTATTGCTCCATTGTGTTTT
TGTGCATTTGGTTTGGATTTTTATGGGGAATTGAAGACAAGTGGATCATAAAGTGCAAAA
TAAATGCTCTAGAAATGACAGATGGGGCACAATTTCCAAGAAAATTCATCTAGACAGTG
GCAACACTGAGAAAAAAAAGAAACATTCAAGAAG

Sequence 777

GAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTT
TGCTAGAGATGGGGTTCCACCATGTTGGCCAGGCTGGTCTCGAACTCCTGGCCACAAGTGA
TCCACCTGTCTCAGCCCCCCCCAAAGTGCTGGGATTACAGGTGTGAGCCACCACTCCTGGC
CCATGTTTAGGATTTATACCAATATTATTAAGTTAGAAAATAAGTTTCTAATAAATTATTC
CACCCGAACCTTAGGGTAAGTGAATTTAATGCTGATGTATTAAGCAGGTTCTTCCTGGGG
TCTTTTGATTCTCAAGGGATCCTTCACTGNGGGTGGACTTCAAATTAATAGGAAGCAGGA
AGGAGCCACCTGCACTGTTTTCTTGACTGGGGATGACACCNAAACCTT

Sequence 778

CCGCGGTGGCGGCCGAGGTACTATGAGAATTTCAAACAAAGAATGAAGCCATAAAACAAA
AAGACTGAATATTTGGCTCTGCCTGGCTCCCAGGCTTTCTACTATTCTTGAGCTTGGCC
TCAACAAAATCTAAAGTGAAGTGTATTTGTGGGTGAGCTTTGTCCCATCCTTACCAGTC
ATGGCTTTAGACAAAAGACTCAGCACCCTCACCTNTGGGACAGTNTGACTGNGGTCTG
AGNCCCCTGCTTANATATTAGGCTTAAGCTCAGTT

Sequence 779

CACACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATGAGAATTTCA
AACAAAGAATGAAGCCATAAAACAAAAAGACTGAATATTTGGCTCTGCCTGGCTCCCAGG
CTTTCTACTATTCTTGAGCTTGGCCTCAACAAAATCTAAAGTGAAGTGTATTTGTGGG
TCAGCTTTGTCCCATCCTTACCAGTCATGGCTTTAGACAAAAGACTCAGCACCCTCACC
CTCTGGGACAGTCTGACTGTGGTCTGAGGCCCTTGCTTAGATATTAGGCTTCAGCTCAG
TTCC

Sequence 780

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACACACAGTC
AGCATGCGCTGTAGCAATGTGCTTTGCAGCTGGAAGTCTATCAAGCATCCTAGGCAAGG
CATGCACCCCAGCGCCAGAGAGAATCAGGAAGGGGAAGGTGCCCTGAACCTCAGACAAGA
ACCCCTTCCAGAAACCACCACCAAGCCATCACTGTGTTTCCACCCTCAGACCTGTGTCT
CTTAGCTTCTTGGTAGAAGGAAAGAAGAGGAGCTTGGGTGGGGCAG

Sequence 781

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCATGGACAT
GCACCCCGGCCACAGAGAGGCGCAACTTNTACAGAACACCCTTCCACCTGGTCTTCCA
CAGCTGCATCAGATTCTTGACTGTACAGACATGACTTCAAAGTTGAAAGTTGCAAGAT
CTCCTGGAACAATTTCCACAATGCATACAACTTCATTCTTAGCCTCAAGCACTGAATTAG
ACTCCATGTCTACTCCCCATGGCCGTATAACTGTCAATTGGAACCAAGCCTGGNCACTCCAT
CCTNTGGANNNTTAAACNTTAAAAANNNAAANCNNNCCCCTNGGCNTTTTTAAAAANNN
GGNNCCCCCGGGNNNGGAAATTTTTTTTAAANATTTTTTTCCCCCCCCCCCCNGGG
GGGGGGGGCCCCCCCCCCCCCTTTTTTT

Sequence 782

NAATTGAGCTCCCCGCGGTGGCGGCCGCCCGGCAGGTACTTCCCTGAGCAGTCGAAGTGG
ATGCCAGACCAATGGCCAGTGCTAATATCAATGCAATGATCCCAATGACGATGATTGGA
AAAACTTCAATGGCAGCAGTGACAGGATCTGTGCAGCAACAGCATCTGCATCTGGTGCA
ACAGGACTTATTTCAAATCATCAAGGCCAAAAAGCGATCGGAATGAGAAGGGGGCTTCA
ACAGCAGGCGGATCATTTTCCCCATGGTGACTATTTCAAGGAC

Sequence 783

CNATTGAGCTCCCCGCGGTGGCGGCCGCCAGGNCTGATGTCTACAGTCCTCTACCTGATCT
ACGTTCACTGGAAGTGTNGAGTCTCAGCAGGAAGCACCTTGCTCTCGTGTCGGGCTAAT

TABLE 1

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TCGAGTGCTTTACGTAAGTAGAGGAATTGCTGACTTTTGGGACATTTCTGGTCTTGCCAA
AGTTCACCTTGATAGTAAAGCCCCCAAAGATACCTCCCAAATAGATGCTCTCTTGAAAATA
ACTCAG

Sequence 784

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGTCGGCCTATTTTA
TATTCTGTTTAGTGCTTTCAACCCCGAAATCCACCTTCTAACATTAATATTGATATCCAT
CCTCTCTCTCCTCCAACCTCTCTCTCTTGCATTTACTTTTAGATTTTCATTACTTTCT
TTTTATTCTGATTCTTGTAATAGTATAAACTAGATTCTTTATTTTATTTACTTTTA
AATTTATGATTGACACATAATAATTGTATATTTATGGGGCACAACGTGATGTTTCGGT
GCATGTATACATAGTATAATGATCAAATTAGGGTAGTTACCATATCCATTACTTTAAACA
TTTATCATTCTTTGTGTAACAACATTAATAATCTCATCTAGAATGGCGTGAACCTGG
AGGCAGAGCTTGCAGTGAGACGAGATGGCGCCACTGCCTCCAGACTGGGCGGACGAGCG
AGACCTCCNTCTCAAAAAAAAAAAAAAGG

Sequence 785

GCTCCCCGCGGTGGCGGCCGCGCAGGTACGAAATGAGAGAAATGGTTTAGTAAACGTATAA
GACATCAACATAGNAAAGTATTCTATAGNNNTATGTGTTGGAATTACAAAGATGAAGAAA
AGATACAGGCAAGTATTTGATATACTNAATTAATAATAGCAAGATGTAGAGTAGNCATGT
ATACAGTGATAGCAAGAACATGGATCCTTAAGGACAAAACCTGAAACATAATGCAAAAAA
GAAAAATATGCAAAATTATTTTCGTATGATGTAAGTTGTAAATAT

Sequence 786

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNGTACNCGGGCCTATTTCTGAA
TAACTCAGNNGCTTAAATATATCCCAAAGTAGNNGGTATCACAGGGTTTCCTGATGAGG
ATAAATGGGCCTGAAGTGCTTATGGGCACCCACTATGTATCATGGNAAAACCTGCACGTG
TGTGTGTGTGTTGAGAGAGAGAGAAAAANAATAGANAAAGTTGGTGAGAAAAGGNGAGG
CTGTTTTTTGNNCCGAGGGNTGTNTGGTTGGGCTT

Sequence 787

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGNACACANTAAGTGAAGGGCC
AAGACTGACGGCTGATAGGACAGGGGTGACCAGTGGTGGGGAGGGTAGTGGGAGCAGTCC
ATCCTGGAATCTGGCATTCAAGGGGCGCATTGTCTGTGGAGGATTTAAAAATAATAAAAC
CAACTAAAGGCAGTCTGCTTTTTATGGTCACCAGGCGCCAGCAATTCTAAATTTAGTGA
TAAATATTCCTCCTCACTGGACACGAGAAGCTGGCTTNTCCTATTCCCAGTACCTGCC
CG

Sequence 788

GGNGGCGGCCGCCCGGTTTTGGACGCGGGTNTNTGCCCTNACTTTTTTAGCGGAGCAGAG
GAAACATTCATAAGGAAATATGCGAGTAGAGCTCAGGAGAAAAGCAGGACTAGAGGCCCA
AGAATCACAGGCCAGAAGAAGAAGCTGTAGCCTCGGGAATGGAAGAGCTCTCTGAAGGGG
AAAGGGGAGAACAGGAATGTNCCAGGAGCCAAGGCTCATCTATAAGGGACTTNCACATTT
AGGATGTAGAAGAAGGAAGCAGAAGCAGGGGATGACCAGAAATGGCCCCAGAGATGAGAT
GAAAGTTAGGAGAGCGGNGAGCAAGCCTTTAGGTTTCACAAGGGAAGGAGGGGAAAGTAGG
TGTTAGGTGCTGCCAAGATCAGGGAAAAATAAGCAGAAGACCAGGCCATTTNANTTGCNG
TGG

Sequence 789

CCGCGGTGGCGGCCGAGGTACCACAATCAACTCAATCACACATATTACAACAAAACCT
TCATCTTTTTCTTAACCCACTGTAACACAAAGCAGAGAATACAGATTAGCTTTTTTATT
TGTCTGTTTGAATCATCTCTTACATACCTCTATTTAGTATCTATGATATTTTCTCTT
CTTATCTGTTCAATGACAGTCTTCCCTTTTAAATTTCTAAACTTGTCAAGCACAGCANTT
AAAAAGTATTCTCATGTATATATTTTATCTTTAGAGCATCGCATAAAGNCTGATACATA
GGAAGTTTTAGATGCATATTTACATTGGGTAGATGAATCCAGGGGAAAAAG

Sequence 790

CCGCGGTGGCGGCCGCCCGGGCAGGTACTGCCCAAGAGAGACGTCTTACTGCCTCATT
AAGCATTTGGAGCTGTAAACACAAATCAAGGCAACCAGAAAGGGCATCTTGGCTTCAGG

TABLE 1

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CTGGGCATAACCATCCCATTGCGCACATAAAAGTCTAGTGGCTACTCTGCACCCCTTTCTG
GGTAGAAGCAGAGTTAGTTTGGTCATGGGGGCCCTGTGGGACAGTGTTGCCACAGACAGG
TACCTCGGCCGCTCTAGAACTAG

Sequence 791

AACCCACTATAGGGNTNATNGGAGCTCCCCGCGGTGGCGGCCGCCCTGGCAGGTACTGNC
TGTCTCAAATTTTTGGATACGCTGTCCCTCATGTACCTAGCTGCTGAGAGCTTTGTGAT
CCTAACAGGTGATGACTCAGACCGACACTGCATTGGTAGGAATCCACAAATAGGTGCCT
CAATGTGCCTAGATTGAAATATCAGCCTTTCCAGACTGACCTGATGGGTTGACTTCAGG
TGTGGTGTAAACACCTACATTTTAATGTAAACATTTCACTGTAAATCAATGAGAACTATCA
TTCTGCTTTAATCACCATGAGTTCTGAAATAACAAAGGATTTGTCTGACATTCATTCTAA
GAAATTCATTCTTACCTGACTAAGAACTTTTTAACCTGGCACAATAATAAGAAATGACC
TGGNAAGTACCTCGGCCGCTCTAAACTAAGGTGGGATCCCCC

Sequence 792

NGGCGAATTGGAGCTNCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGCAAATGTAA
GTTGGTAAAAGACATTGGACTCCAGCTATGTTCTTTAGAAAGAAGGTATTGGACTCTGGC
CATGTTCTTCAGAAAGACATGCCTGGCTTTTTCACGATTTGATCAGTCTTCTTAGACCC
TGAACCCACCATGAAATGGCTTCCCAGACACAACCCGAGAGAGTTATGCTTTGTTCT
CAGCTAAAATATTTTGCAGATCTTAATTTCTGGGTCAATGCATCATTTTTTTTTTTTT
T

Sequence 793

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAGTATACCTTTT
CATTTAAATCATTGAACAGTTCACAATGGCTGTTGTAAAGTTTTTGCCTTGTTACTGAA
CCATCATCTCTTGGTCTATTTCTATGGAGTTATTTTTCTAGTTATTGGCAGTTTGCTT
ATCTTTTATGCTAATAACTTTTAATTGAATGTAGAACATTATGGATCTTATATTTTT
GAGAATCTGAATGTTTAAATTCCTTTGAAGAGTTTGTGTTTTCTTCTGGAGGCAGTTTA
CTTACTGGCTGTGAGCTCAGTCCTGTTGAGGCTGTTTNGCGACNNNCTGTGGCTTTGTCA
GGGTGGGGTGGTGGATCAGACATCTGGTCATCAAC

Sequence 794

ACNCCCGGCCAAAAGGGAGNNCACAGGGGGGGGCCAATATATAAGGGGGGCAAGGAGGGG
GGGNNGGGNAAAGANGNCAAACCCCNCCNNGGGNNGGGGGGGAGGGGNAANAAAGA
AGGNNGGGGNGNCCANGCAACCNAAGGGACNAACCAACANNNAAGCGGGGGAAGGGG
CACGANAGANANANANNANAGGNGANNCAAGAACCAANCAAGGGNNGGGGGGGAAGGGC
NNCAAANGGGNNNAAAANNGGCNCAGGNNACNAANGGGGGGNNNGGGCANNAGAANGG
GGNNGGGGNNANGGAAANNAAANNCCGANNNAACCAAGGGGAAGGGAGGGGGNNGGAA
NCAAGGCCCCCGGGGNCAAAAACAAAAGNNGGGGGGAAANACAANCAGGGGCAANGGGNNG
GGAGGGGAGGNANAGCCGCGCGNAAAAAAAAAAAAACAANCCAGGGGCAANGGGGNN
GGGGNNGGCNAANGCCNCCNNGGGGNAANCCCNANGGGNACCNNNGAGGGNNGGGNN
GGGGGGGCNCNGAAGGGAAAAANAACCCCAAGGGAAAAANCCANGGAANGGGNAANAAG
GGGGGNGGCAAGNNGGNANCCCGNAAAAANAAGGGGAAACNNGGGGANNGNCCCAAAAC
CCNNGG

Sequence 795

CCGCGGTGGCGGCCGAGGTACTATCTCTTAGGAGAAGGCTGACTTGAAGGCTGTGAAAAA
CTAAGAAAACACCAACCATTCACAGTATACTAGAATTCCTTTCAATGCATAATAGAAAC
AAGAAGGGATTAGAAAAGCATGTCTAATTTCCAGATAGCATAATTATTTACATTAAAGA
TCCAAGAGACTCAGACCTAGTAAAAGATTTTGGCCACATTGTGACATTTGAGATCACATT
AAAAAAAAAAGGAAAAATCAAGNGATACTAACATCACCAATTAACATCATNAATTAGAA
AATTTATCCATCAGCNGTATTNNNNNGGGCTCAATGCNTTGAATGCCGCATTTCGGGAG
GC

Sequence 796

CCCCCCCCGAGTTTCAGCGAAAAANCCCGGCCGAGGNACCNCNCCNTTACNCCCAGGNTT
ANAAACNCCNNGGTNTNGNCCAGGAGAGGCGGGGGANACCGCGCCNNGGCCAGCANGGN

TABLE 1

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CCCCTNCTAAATNNNGNNGTNNAAGGAANCNGGACCCCAAANNCNCGCCCCCACGAAAG
GAGCCTGGGAACCTACCAGGGCGTGAGCTCACCGNGCCCGGCGCTCTAGAACGAGAAGGA
ACCCCGGGGCTGCAGGAAAAACNATAACAAGCNAANCNAAACCCGACCACCCCAAGGGGG
GGGCCCCGGGACCCAGCTGTTTGGGCCCTCAANACNAGGGAAAAATTGCGCGCTAAGNGCN
CAANCANGGGCCAAAANGCTGGNTNCCCCGGAGGGGAAAAAAGGACACTCCCGCGNCACA
AATTACCACNCAAAACATAACNGAAGCCGGNNAANCAATAAAANNGGGGAAAAANACCCC
NGGGGGTGGCCCTAAAAGGAGGGGGAGCCCCAACCAACAAAATAAATTGGGGG

Sequence 797

AGGTACTATCTCTTAGGAGAAGGCTGACTTGAAGGCTGTGAAAACTAAGAAACACCAA
CCATTCAACAGTATACTAGAATTCCTTTCAATGCATAATAGAAACAAGAAGGGATTAGAA
AAGCATGTCATAATTTCCAGATAGCATAATTATTTACATTAAAGATCCAAGAGACTCAGA
CCTAGTAAAAGATTTTGGCCACATTGTGACATTTGAGATCACATTAATAAAAAAAGGAA
AAATCAAGTGATACTAACATCACCAATTAACATCATCAATTAGAAAATTTATCCATCAGC
CGGGTGTGGG

Sequence 798

GCGGCCGAGGTACAATTCAACAATTNNTGGTCCAGGATCATGAATGGGCCATTNNTAGTT
CTGTGTGTGCTTAAACACATTTTTTGTGGGGTGTGTGGATGTGTGGATGTAGCCAAAA
AAAACCCCTATTGTGGGNTNGGTCTGGGGCAGAAAGTCTGGTGCCAGAGAGTGGGGTTCT
GGGGGTCTGTCTTCATAGTTTGGGGTAGCACTAAAATCCTGTGAGCCTTTCTGGGCCTTG
GTAACCTCCCCTGTAAGTTAGCTGTTAGATAATTCAGCTGGGTAGCATTTTATACCTGGA
TGATGTTCTAAAGTCCAGCCACANAAGGCCNNNGTCTGGCAGAGTGAGAATTNCCTTTGA
AGAACCTTNAAACTGNTNCCCNAGAGTGACACAGGGGNNCCTNNGGGGAAAANCNAAAAG
NNNTTGGGAATTCTNTNCAAAAGNAAGNCCCATTTTTTTTGCNNNATTNNGGCCNCNG
NTAATNCCCCNCCCCAAGNAAAAANNAAAAAANTNTTTTTTTTTTTT

Sequence 799

CGGTGGCGGCCCGCCCGGGCTTGGTACCCTCTGTACGGCTTCCCTTTGCTGGAAAAGGGA
ATTTCCCAACCCCGGGTGAGGCAATGCCCGCCCTGCTCCGTGGGCTGCACCTGCTGTCT
GTCAAGCCCCAATGAGATGAACCCTGTACGCGGGGGCTGGGATCTCAAAATGGCGGCC
CGTGCGGAAACAGCGTNTGGGAGCAGANATTGTTGCCTCCTGAA

Sequence 800

GGGCGNTTTGGAGCTCCCNCGGTGGCGGCCGGGCAGGTACTATCTGGAACNTGTAGCTT
CCTTTNGCACTGCAGCATGGGAAGCCAGAGTTGATGATTCATACACCAGCATTTACATT
TTCAGCATGAAAGTGGTATGTTCTTCAACTCACAACCCATTGGCCAGAACCAGTAACATG
ACTTCACCTAACTGCAAACTAGCTGGAGAATTGTGGGAGAGCTCATGG

Sequence 801

CCGCGGTGGCGGCCGAGGTACCATTTAGCACACAATTTCCATGTCCAAAAGCAACCCCC
ATAAACAGTGACTATTTTTATGCTGTTTTCTTTGCCCAACACTTTTATCATTTGATA
TGTTATATCTTGCTTTTTTTTTCTTTTTAATGGAGTCTCACTCTGTCAACCAGGCTG
CAGTGCACTGGCGCGATCTTGGCTCACTGNAACCTCTGCCTCCTGGGTTCAAGCAATTCT
CCTGGGGGGTGGGGAGGTTTGCAAGTGATCCAAGATTGCGGCTCTCACTCCAGACTGGG
NGAAAGAACGAACTCCATCTNAAAAAAAAAAAAAAAAAAGTACCTNCCCGGGCCCGG
CGCTCTANAACCTAGGTG

Sequence 802

CCGCGGTGGCGGCCCGCCCGGGCAGGACGCGGGATGGTGTCAACTTATGTCAGGACCCATG
GGCCCTCCCCATGCACACAGCACTCTTGAATCTCATCCTTTTCCATGGCTCTGGCTCAC
ACTTCCACAGCATTTACTCCTAAATATGCCCCCTGGGTTCAAGGGTGATTCTCGTGCCCTC
AGCCTCTCAGGTAACCTGGGATTACAGGCATGCACCACCATGCCTCGTATTTTTTTGTGT
GTGTGTTTAGTAGAGACGTGTTTCACTATGTTGTCCGGGCTGATCTCCAACCTCCTGTAGT
CAAGTGATCTGCCCGCCTCAGCCTCCCAAAGTGCTGGGATTATAGACATGAGCCACCACA
CCTGATGTCTGATGCTTATTTATTATGTGACCTTAGCGAAGTGTTGGGTAGTCATTAGTGC
TGGTCTATCTCTATACCTTCCCCAGGCAAGGTAGGATTGCACTTCCCGTCCACT

TABLE 1
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Sequence 803

AACGACCGCCCGGGCAGGTAAGCCAGGACCTCAGTTAGCACTAAGCACTCTTACTAT
TGCCCCACCTGGCACAAAGCAAAGTGAAGTCTTAGTTGGGCCCATCATGTGTCATCTGA
TTGTCTTAGAAGTTCTTTTTTCTAAGACAGAGTTTGTCTTTTGGCTCAGGCTGGAGT
CCAATGGCACAATCTCGGCTTACTGCAACCTCCGCCTCCAGGTTAAAAGCGATCCTCCC
GCCTCAGCCCTNCGAGTAGCCGGGACCACAGGCACCCGCCACCACGCCCGGNTAACCTT

Sequence 804

TACTATAGGGCGAATTGGANCTCCCCGCGGTGGCGGCCGCCCGGGCAAGGTAAGTCTCTAT
GACTATCAAGCTCAGGCCTCTCCCTTTTTTAAACCAAAGTCTGGCAACCAAGAGCAGCA
GCTCCATGGCTCCTTGCCCCAGATCAGCCTGGGTCAGGGGACATAGTGTCTTGTGG
AACTGCAGACCAAGGTGCGGGTCTATCCCACTTCTAGTGCTCCCCACATTCCTTGT
CAGGGCTTCTCCTCAGTGGACAGGTGTGCTAGTCCAGGCAGTTCAGTTGCAGTTTCTTGT
CCTCATGCTTCGGGGATGGGAGCCACGCCTGAAGTAGAGTTTCAAGGCTGGATACATGTGCT
CACCTGCTGCTCTTGTCTTCTAAGAGACAGAGAGTGGGGCAGATGGAGGAGAAGAAAGT
GAGGAATGAAGTAGCATAGCATTCTGCCAAAAGGGGCCCCAGNTTCTTAATTTAAGCAAA
CTAAGAAG

Sequence 805

CCGGGCAGGTACAATGGACTTTGACAGTTCTTCCCAAACAGATCCTAATTTTAAACATTA
GGTTTGCTTTGATTCTTTTCTTGGGGCTAAGAGCTCACAAAGACTTAGGTTCTGGTCAT
GGCTCCAGAGGCCACACATTCCAGGACAAAGTCTCTCTACAGTCAACGCCTTAGTCCCAC
ATCTGTAAATCGGAATAATCATCCCTGATCCAGCTATCACATTGCAGTAGAGTGAGACT
CAAATGAGATAATGGAAGACAGTGGGAATGATCATTTCCAAGTTGGCCTGGCTGACCCAT
TCCTTGTTCTAAAGTCAAGTCTCAGGTTTACCTCTTCCAGNGAAGTTGACCTGGCACTTTC
TTTTAGGATGGCTACTGCTCCTCTGGGTGCCCGGGGCTCANTGTCTCCCCATCACCGCC
CATGGCACACTTGGAGTGACTGGTCTTTACTTTGNTT

Sequence 806

TNCGGGCAAGGTACATTGGCCCCAAAGAGNAGGAATTCCTTGTAAGAGGAGCTTGATAGT
CTTNCCCTCCAGCGGAGAAGCAGGCCAGAGAAACCTCCGAAGCGGGCCTCCGCCACTTTG
AGAGTGATGAAACCGTCATGGTGCTGGGAGCCTGGGGCAGGAGGTCACAAGAGTTGCC
CCAGGGCTGTCGTTTAGTTCTCCAGACAACCTCCCTTCCACTCTGGTCTCACACACCCCA
GCCTTACCCTGCGTCAGTGGACAAGGGGGTAGGAGCCTGCAGAGCAGAAAAGTACCT

Sequence 807

AGCNCCACCGCGGTGGCGGCCGANGTACGCGGGATATGTAGAACTTCAACNGTTTGAAGT
TGGCTGATTAAATATACTAAGTATTACTGAATCACTGCCCTGCCTTTTCTGCTTCTTTA
CAGACCTGTTTAGTATACACTGTATGTATTTTTTTTTTTTTTTTGGAGACTCCGTCTCAA
AAAGAGAAAATTATGGGCCGGGCACAGTGGTTCATGCCTGTAATCCAGCATTTTGGGAG
GCCGAGGCAGGTGGATCACCTGAGGTTGGGAGTTCGAGACTAGCTTGGCCAACATGACGA
AACCTGTNTGTACCTGCCCCG

Sequence 808

CCGCGGTGGCGGCCGAGGTACGAGACTTGTACCATGTGACATGGCAGCTTCAGAAACTT
AGCCACTGCCAAAAAAGAGCAGGCAGGGATAATGTTGTCCATTGTCCAGTCAGAGAGA
CCTGTTGAGTCTCTAGTTGCCAGTCCCCAAGAGACCTTTGGAGTTTGTGGAGCCAGA
CATCCTGCTTAGAGATGAGGAAGATCCTGCTGTTCCGTGGGGAGCTCTTGAGACACCCGT
GCCACCACCCACCTTCTCCTGATTGCCACTTGCTGCCCTTTTCCATTACCCTCTCCTGA
CTCCATAAACATCTTCAAGTCTTCCCTTTCTCCACCCCAAAAAATGCCACCTTGGAAAG
GG

Sequence 809

AAATTAATTGGGGTTGNGCTAACTGCCCGGTTTTCAATCNGNAAACCTTGTGGGGCCCA
NNTGAATTAANANAATNGNCCACCCCCCGGGGAAAAGGGNGGTTTTNNAANTTTTGGG
GCCTTTTTCCCTTTTTTAAAAA

Sequence 810

TABLE 1
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CCGCGGTGGCGGCCGCCCGGNCACGGTACGCGGGGATGTCTTCTGAGAGAGTCAGGGCAG
CTGAAGACTGGGTGAGGGTGAGGGAAGCCGCTGGTGTCTCCTCAGTCACCCGTGAGAGG
ACTCCTNTGTGGAGCTAATCAACTGCAAGGAAGATTGTTCCAGTGTCCAGACCTGAAGG
AGTCTGGACCCATAGTGCANTGAGATTGGGGAAGGAAGGATTCCGGATAGGGGTGAGCT
TTNTGNTGATAAGCAAATGTGAAC

Sequence 811

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGTGTATGGAAGCCAGTAACACTG
TGGCCTACTATCTCTTCCGTGGTGCCATCTACATTTTTGGGACTCGGGAATTATGAGGTA
GAGGTGGAGGCGGAGCCGGATGTCAGAGGTCTGAAATAGTCACCATGGGGGAAAATGAT
CCGCCTGCTGTTGAAGCCCCCTTNTNATTCCGATCGCTTTTTGGCCTTGATGATTGAAA
ATA

Sequence 812

CCNTCAGGTACCAGANCTTAGCAGGGATTTTGGACAACAAAAGCTCTAAATCCTCTTGCA
TCGACACGTTCAATTTGCACTGACCAATCTGTTGGCACAGTAACTGTTTATAAGCTAAAT
TTCTACATTTTGGCTACAAGTATCCCAAATCCACCTTTAAAAAATCCTAGGTAGATGCC
ATCTGGTGTTAATGATTGACACACCCCTTAAATTGAAAATATTTTAAATAAATCTCACGG
TTTTATATAGTATCATTAAATGTGTCTATTTTAAAAAGACAATCTGAGAATAACACTTCCC
CTAATTGTTGTCTTAATAATGACCAAGAGCTGAGGAAAAATGATTCACACTGTTAGTTGT
TTTGTGTTTTGCTCACGGGGGAAGGGGGTGAAGTACTGGCTGTGCCTGGGTTTG

Sequence 813

CCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAAA
GGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTCC
GTGTCGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGGTGGAGCAA
GTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTG
GTGGACATCCATGTGGCAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGC
ACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCCAGGACAAAGCC
CAGCCAGGCACCACCAATTACCAGAGGAACAAA

Sequence 814

CCGCGGTGGCGGCCGAGGTACATTATTCATATCCAGCACTCCCTGCGGCTGCTGCTGGAG
GAGCAGTTATCCAACAAGGACTGTTTCAACCTCATCGCTTTGGAAGCACAATTGAAAGC
TGGAGGCCTGAGATGGTTCCCGTGAGTCACAACAATTTACAAAGTGCCTGGCGGTAGGTT
ATGGGCAGAGACTTCGTGGGGCTGTGTCTGAGGGAAGGTTTGCAGGCATTGTTTCTCTG
TCCCCCTCTCCACCAAGAAGTAGCTCTCTAGAGTCCCTGACCCCAAACAGCCATGGGCAG
AAATCAGAAAACAGCTTCTTCTGTCTGCTGCTCTCCCCACCTGGCCATCTTCACTTTAT
GAGAGTAATGACATCGACTCCATCAGCTCTGAGATGGGAAAAAGGCTCTCAGCTACTCC
CAAAAGGGTATGCCCTGGGCATGGG

Sequence 815

CCGCGGTGGCGGCCGAGGTACTCTTTTTTTTTTTTTTTTTTTTGGAGACAGGGTTTCTGTT
GCCCAGGCTGGAGTGCAGTGGCACAATCTCAGCCCACTGCAGCCTCCGCCTCCCAGTTC
CAATAATTCTCATGCCTCAGCCTCCCAAAGTGGTGGGATTACAGGCGTGAGCCACTGCGC
CCGGCCACCTTTCTATTTTTCTGGTTAACTTTCTAAATGTTTGAAATGGCTTCCAGTGAA
TTTCATTTTATTATTGGGGGAAACTTCCATACTTATTTTCTTTCTTCCCAAATCTCCACA
AGTATACTCTCCTCCCAAAATTTAGATAGTTGTATTTTTCTGATTATTCCAAATAAGAGT
GCTGAGAGGCTAATCACAAGAGCAACAGCCAGAGATTTACAAAGTGGTTCTCTTACTAT
TGAACATTTTCACTTAT

Sequence 816

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTGCCAGGTAAGATCAC
TCGTGGGTAAGAACATGAGGTTCTACCCGTAAGGCAGGATTTTTATAGAAGGAAGGTAG
GTCTTTCAACCTATGTCCTCCTTCTGTTCCACAAAGTGAAAGCCACAAGCCCTACAAAA
GCCTTGCAAGTCCCAGAGGCTGCAGCCGTATTTATTCTTCAGGCCAAGACTCTCAGGACA
GAGAGCACCCATGCACCCCGCAGGCTGCAGGCCATCTCCCTGCATTTGGGACTGTCCTGA

TABLE 1

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GGATGGCGGCTTCATTTTTGTCCCTCCTACCTCTGA

Sequence 817

GAACCTAGGGCGATTTGGAGCTACCCNCGGTGGCGGCCGAGGTACATTTTGGCAAACCGT
GAAGGGCTTTCNTTTTNGCAGGTTGGAATCCCCCCCCTAGTNGGCAGGATTTTTTTTAG
GGGACCACCTGAGAAAGGTCTGTTACCGTGCATAAACCTCCTTTAACACCTTTTAAAAAC
TCTTCTGGGGGCCGGAATCAGTGGCTCATGCCTGTAATCCCACCACTTTGGGAGGCTGAG
GCAGATGGATCACCTGAAGTCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCC
GTCTCTACTAAAAATAGAAAAATTAGCCAGGAGTGGTGGCAGGTCCCTGTAATCCCACT
ACTTGGGAGGCTGAGGCAGGAGAATTGCTTGAACCCAGGAGGC

Sequence 818

GCCAGGAAACCCGTAAAAAGGGCCCGNTTGTGGCGGTTTTTTTCCATAAGGGTTTCCG
CCCCCTTGACCGAGGCANTTAACAAAAATNGACNGCTTCAANGTCAGAAGGTGGGC

Sequence 819

CCCCCGGTGGCGGCCCGCGGGCAGGTACTGGGAAATGAGGCAAAAGTNTNTCTCTTCA
CTGCTAGCTCCTTGGGGACCAGCAAGCGGCTCTCAAGTTGCGTGGTGGCCCACTGGAAA
AAAGGCAGTTCGGTGCATCCTGGGAATATCCAGGTGAAAGTGTGAGATTTACCTAGAATA
GCTTCTGGGCCTCTGGGGTTTTTACGCTGTCTCTGGTGAAGGTGTCCATTTTAGAAGTGA
AGCAAAAAGGTTTCAATCCGTTCCGTTTTCTTTGTTTTAGCACTTACCCAGNNCCTCC
ATAACAAAGGTGGNGCCCTTCAGGGAAATTAATTTTTTTTTTCNTAAAGGCCTTGGCAT
TAANCCNTTTTTTTTGNNGGNNGGNAAANTTTTTTTTTT

Sequence 820

TAGGGCGNTTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACAT
CCAGGNCAAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACGCATTCCGCTTCTG
TCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTC
CAATTTGGACCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATT
CCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATC
AGTTTATCAACCAACAAGCAGTTCAGCACCCAGCACTTTTACCTGAATTTTAC

Sequence 821

CCGCGGTGGCGGCCCGCCCGGGCAGGTACGCGGGCATGCAAACTCCAGATTCCTATCTTC
TTTGGGGGAAAAGCAAATTGGAAGCTCTGACAATGCTGGGCTTTACTTTCCACATAGCA
ACCATCAGTTGGAGCTGAGACACCTCTGCTCTTTAGAAAGAATTATTAATGCTTCAGT
CTCCATTATTGCTTCCCTAACAGTGAGGATAAGTTATTGGCATCAANCCTGGCCGGTTTA
NCTTGGGGGTTTATTTTNTNNNTTTGGGGCTNAAAACCCCGGGGGGNNCCTTTTGGCN
CNGNGGGGGGGGGGAANTNTNNNANNANGGNGGGGGGGGTTTNTCTCNCNCCCCCCCCA
CNTNTTTTTTTTTTTTTTTT

Sequence 822

CCGGCAGGTACGCGGGGAGGTCATGCCCCGTGTGAGCCAGGAAAGGGCTGTGTTTATGGGA
AGCCAGTAACACTGTGGCCTACTATCTCTCCGTGGTGCCATCTACATTTTGGGACTCG
GGAATTATGAGGTAGAGGTGGAGGCGGAGCCGGATGTCAGAGGTCCTGAAATAGTCACCA
TGGGGGAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCATTCCGATCGCTTTTGGCC
TTGATGATTTGAAAATAAGTCTGTTGCACCANATGCAGATGCTGNTGCTGCACAGANCC
TGTCATGCTGCCATTGAAGTTTTTTCCAATCATCGTCATTGGGATCATTGCATTGATA
TTAGCACTGGCCATTGGTCTGGGCATNCACTTTCGACTGCTCAGGGAAGTACCTCGGCCG
CT

Sequence 823

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACGTGTT
AGCTATTATCATCACCTCCTTGCTAGGCAGAGCAGGACAGTGGGGAATTGATGTTTCTCCT
CCCCCTCATCTCACAGGTGGGGCAGGGGTGTGCTGAGAAGAGAACTTGGGACTCTTGGCC
CCTGTTCAATTCTCTGCTTAACCTGCTAGGCAATTTGGGCCTCTGAAAATTCAGTAATCC
TCATAGCAACTTAGACGTCACCTGGGCCTGTGGTCCCCTTCTAGCCTAGGAGTCAGAGC
ATGAAGCTCCATCTGTCACATTGGTTTGTTCAGAGAACTACACATGCGTTTTATTTAGC

TABLE 1

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AGCATACAGGTTCCCACTTAGGCATTGAGAGGACATAGGAAGCTGTTTAACTTCCTA

Sequence 824

ATCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTATTATTTA
AATTCCACTCATAACTTATCGGCCAAAAGTAGTCACATGGCTCCACCTAATCACAAGTGG
AGCGGGAAGTGCAATCCTACCTTGCCTGGGGAAGGTATAGAGATAGACCAGCACTAATGA
CTACCACACTTCGCTAAGGTCACATAATAAATAAGCATCAGACATCAGGTGTGGTGGCTC
ATGTCTATAATCCAGCACTTTGGGAGGCTGAGGCGGGCAGATCACTTGACTACAGGAGT
TGGAGATCAGCCCCGACAACATAGTGAACACGTCTCTACTAAAAACACACGCAAAAAA
TACGAGGCATGGTGGTGCATGCCTGTAATCCCAAGTTACCTGAGAGGCTGAGGCACGAGAA
TCACCCCTGAACCCAGGAGGCAGAGGTTGCAGTGACCGATATCATGTCACTGCAGTCCAG
CCTGGGTGACAGAGCGAGACCTTGTCTNAAAAAAAAAAAAAGAAA

Sequence 825

CCGCGGTGGCGGCCGAGGTACAGATGTATGGATCTCATAGCATTGAGGGGTCTTTCAGAT
TATGTTTTCAAACCCCTCACTTTCTCTTTTCAGATAAGACCACAGCGACCTGGGAAAGTG
CAACGTCTTAGCCAAAGACACAGAATATTTAGCGACACTGTCTAGACTCTAGTTTCCAT
GTCTCCTGACTTCAGTCTAGTGTTCACCCCTGCCGCCACCCCTGCCCATCCTCATT
CTCCTGTAGGAGAGGCCAGACCTTGCCTGCTGCAGCTTGTGGCTCTTCTCCTGCCTTCA
GTTNTTCCATTGCCTG

Sequence 826

GGGNNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCAGGTACCTGTCTGGGCAACACT
GTCCCGNNGGGGCCCCCATGACCAAATACTCTGCTTCTACCCAGAAAGGGTGCAGAGT
GGCCACTAGACTTTTATGTGGCAAATGGGATGGTTATGCCAGCCTGAAGCCAAGATGCC
CTTTCTGGTTGCCTTGATTGTGTTTAACAGCTCCAAATGCTTAATGAGGCAGTAAGAGA
CGTCTCTCTTGGGCAGTACCT

Sequence 827

CNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGAGGTACTGGTGGTGTGGCTACTACCGTTACA
ACTGCCTGTGCTTGGACATGGACCTCTGCAATATGCGGCAGTTTCATTCAATTGCCCCCT
ACATTCTACACCAAGTAGAAATGGAAGGCAATTGGATACTTCACAGACAAGATCTAAGTG
GAGAAGGAATGCGTCCTGTGGCTGCAGAGATCCTTGGAGCTTGGAGGGGAGAGCTTGAGC
CCCACTGATGATGACCTCCACAGCTCGCCAATCAGCCCTCCCTAAGTCCCCATCGGGG
GCCAATTCTCACTCTGGGGTTGGGGGACTCCACCATAGCTCATCCATCATAGGGGATGT
TGGTATCTACTGTGGGTTTGGGTAGGGCCCGATGTGCTGAGGATGGCTCCCCACAAGCA
AGAGATGTGGGATTGG

Sequence 828

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGAGGTACATCACCTGCTGAGGGACA
TCCAGGACAAGGTCAACCACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCT
GCCTGGTCACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCT
CCAATTTGGACCCCAGCCTGGTGGAGCANGTCTTTCNAGATANGACCCTGAATGCCTNAT
TCCATTGGGCTGGGGCTTCCACCTACCAAGTTGGGTGGGACATCCATGTGACAGAAATGG
AGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTNACTGAATTTTA
CCATCACCAACCTACCATATTCCCAGGACAAAGCCAGCCCCGCCCCCCCC

Sequence 829

CGAATTGGAGCTCCCCGCGGNGGCGGCCGCCGAGGTACCTGATCTACTCCTCTCTACAACAAC
CTTGTGGGTGACGTTATTATCTCCATTTACAAAATGAGGCCACAGAGGTTCTAAAGGGTA
AATGACGATGATGATGAGAGGTAAGTGATAAAACAATGTCTCCTGACCACAAATCCTGGA
ATTTAAACATAAGNGTAGTAAACATGAACTCTAGGAAGCCTCCTGGGGCTTCTNCCTGTG
TCTGGAGCCCCTGCACATGCCCAAAGGAAGTCTTTTGGTTCTNCGNTCAGNAGAGAAAG
GGNGCATTTCATAAAAGGGAGGTGGGGAAACAAGACTGGTGGTAGGG

Sequence 830

CCGCGGTGGCGGCCGAGGTACATTATTCATATCCAGCACTCCCTGCGGCTGCTGCTGGAG
GAGCAGTTATCCAACAAGGACTGTTTCAACCTCATCGCGTTTGAAGCACAATTGAAAGC

TABLE 1
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TGGAGGCCTGAGATGGTTCCCGTGAGTCACAACAATTTACAAAGTGCCTGGCGGTAGGTT
ATGGGCAGAGACTTCGTGGGGCTGTGTCTGAGGGAAGGTTTGCAGGCATTGTTTTCTCTG
TCCCCCTCTCCACCAAGAAGTAGCTCTCTAGAGTCCCTGACCCCAAACAGCCATGGGCAG
AAATCAGAAAACAGCTTCCTTCTGTCTGCTGCTCTCCCCACCTGGCCATCTTCACTTTAT
GAGAGTAATGACATCGACTCCATTCACGTCTGAGATGGAAAAGGCTCTCAGCTACTCCCA
AAAGGTATGCCCTGGGCATGG

Sequence 831

CCGCGGTGGCGGCCGAGGTACGCGGGTAACAGGAGTCTTTGCTGAGTGATCATCTGTTTA
TTCTTTTACTCCACAAATATCGAATGTTTACAGCGTGCCTGGCACTGAGCAGGGCTGGGG
TTTCTGACCATATGGACCTTCTGGGTATATCTGTGGGGCTGAATGGTGTGTGACCTT
GTGTCCTGCCCC

Sequence 832

CGGGCAGGTNCGCGGGGGTGTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTCTTC
CGTGGTGCCATCTACATTTTTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCC
GGATGTCAGAGGTCCCTGAAATAGTCACCATGGGGGAAAATGATCCGCCTGCTGTTGAAGC
CCCCTTCTCATTCCGATCGCTTTTTGGCCTTGATGATTTGAAAATAAGTCTGTTGCACC
AGATGCAGATGCTGTTGCTTGCACAGATCCTGTCACTGCTGCCATTGAAAGTTTTTNC
ATCATCGNCATTGGGATCATTGCATTGGATATTAACCCCTGGNCAATNGGCTTGGGCATT
CAATTTGACTTGNTAAGGGAAGTNCCTCGGCCGNTNTANAAGTAGNGGGATCCCCCGGCT
GGANGAATTTCAATTTNAACTTATTGATACCGTCCANCCTTGNGGGGGG

Sequence 833

ACCGCNGTGGCGGCCGCCGGGCAGGTACATCACCCCTGCTGAGGGACTTTTNNGGACAAG
GTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACC
AACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGAC
CCCAGCCTGGTGGAGCAAGTCTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTG
GGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTTATCA
AC

Sequence 834

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACCTTACCACCC
CATCCCCAGAGCATTGCATGGGGTGTTTGGCACACAGTAGGTGCTCAATGTAAACGTGTG
CACTGTGGCATGTTAGAGCCAGACAGGATCTCATCCAGCCGTTCTCTGCACCCCTCCCT
CCCTCTCCAAGTAGCCCTGCTGTGGGTTCAAGTAAAGAGGGGCTGGGGCGCTGGTCTGA
TTGTGTGGGTGATTTGGGGAGATCTTCTCCTCTTCCGGAACCCCAAAGGTTGGGACAAA
CACAGCAACAAGCCCAGCTCCCTGAATTTAGTGATTTCATTTGTGGGGATAAAGGAGTGA
ATG

Sequence 835

CCGCGGTGGCGGCCGCCGGGCAGGTACTAGTTATTTTAAATTCCAATCATACTTATCG
GCCAAAAGTAGTCACATGGCTCCACCTAATCACAAGTGGAGCGGGAAGTGCAATCCTACC
TTGCCTGGGGAAGGTATAGAGATAGACCAGCACTAATGACTACCACACTTCGCTAAGGTC
ACATAATAAATAAGCATCAGACATCAGGTGTGGTGGCTCATGTCTATAATCCCAGCACTT
TGGGAGGCTGAGGCGGGCAGATCACTTGACTACAGGAGTTGGAGATCAGCCCGGACAACA
TAGTGAAACACGTCTCTACTAAAAACACACGCAAAAAAATACGAGGCATGGTGGTGCATG
CCTGTAATCCCAGTTACCTGAGAGGCTGAGGCACGAGAATCACCTTGAACCCAGGAGGC
AGAGGTTGCAGTGACCGATATCATGTCACTGCAGTCCAGCCTGGGGTGACAGAGCGAGAC
CTTTGTTTCAAAAAAAAAGAAG

Sequence 836

GNGGNGGCGGCCGAGGTACTTTAACANGCCATACTCCAGTCCCAACAATGTTAAATGCCA
AAGCAGTGTTGGTAAAGCCTCAAATGGTGAAAAGGACAGAACTCAAACCCGCCCTTGT
GCCAGTAAGTAAGTGTACTTATCTACAAAGCGCTTGGCTCTGGAAACAATCTAACTCT
GAGCTGCACGTGGAGTCTACATGGGAATGTGCAAAGCATGTATTTCTTTTAGGTGCAGC
AGAGGTAACCGAAATTCAGATAAGAGAAAAAATCCAGATTTCAATGCAAGAGGTGGAA

TABLE 1
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GATCCACGAAGATACTCGTTACTATTTGGTTTCTAGGAGCAGGATTGCCACTAGATATGA
TGGAGAACAAAAATGAAGAGGTGTTGTGTAAACAAAACAAAACAAAACAAAAAAGT
AGAAAGAAAGAGCAACAGGCCGGCCGAGTANCTTCATGCCTGTAATCCCAGCACTTTT
GGGGAGGCCAG

Sequence 837

NTTGCGTTGCGCTNACTGNCCCCGCTTTCAGTNCGGNGTAAACCTGTCGTGCCAGCCTG
CATTAAATGAAATCGGCNCAACGCGCGGGTGAGAGGCCGTTTTCGTATTTGGGCCGCTCT
TCCCGCTTCTTCGCTCACCTGACTCCGCTGCGCCTCGGGTCGT

Sequence 838

CGCGGTGGCGGCCGAGGTACTAGGCACTGAAGATACAATAAGCAATCCAGNAATNCCTCT
TTGAAGAATTTATTTCTGATGAAATAGAGACAAGCCTATTAAGTATTCAAGGCAACATTA
CTTAAATATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTT
CTGAAGTG

Sequence 839

AGGTACCTGTAGTCCANTTACTTTGGAGGCTAAGGTGGGAGGATGGCTTGTGCCAGGA
GGCGGAGGTCACAGTGAGCCGAGATCACACCACTGCACTCCAGCCTGGGCAATAGAGCCA
GGCCTTGTCTCATAAATGAAATATAAAATATAAAATAAAAATAAAAACGTTGTTGGC
AAAGATGTATTCAAAATAGTATGTAGAAGTACCTGGAAGGTAATTTTGAATATTTACC
AAAATATACTTTTTCATCTAGTAAGGTCTCCTTCTCAGAATCAGTCTTAAAGCCATTCAA
ATACAGATTTATGATTAAAGATTTAAGTCCAAAAATGCTCATTATAGCAATATTTATAAT
AGGAAAAATTGGGGAAAAACAATTATACATCCAACAGTAGTAAGAGTGTGACTACATTAT
AGTATTAGTATGTAATGGGATTGTACAGAGCAACACACATGTTTTTGAAGAATATTTAA
GGGCGTGATAAATATTAATGTAAATGTAAATTGAAAAATGATATCTGTAGATTTTCAT
TATGCATTTCTTTATGAAATTTTNGATATACACAAAANAAAATAGTCATGCATTTGCTT
CATGACGGGGACATATTTCTGAGAAATGTGCTGTTAGTCGGTTTC

Sequence 840

GGCGGCCGCCGGGCAGGNACANCTTCCGTGGGGGGGCNAAAAACCCCCACCNAANCAA
AANAGCANCAAAGGAAGAATTNNTTAAGGGCAGGGGGGGGAAGCCCCNAAAAACCNGANG
GCAANNCCAGAGCNGNGGNNNAGCNCNAGNNNCNGGGAAGAGCAANCANNACCTTTTG
TGAGGTTTNGGNGNNGGAGGGGGGGAACCCCCCGANAAAAAACCCAGNAGCCCCCCCCA
CNNAACAGGGGANGAANAAGAGGAAGGNAAGGANNNNAANNAAGAGCCACAGNCCNGGAA
ACANGAAANCANNANNNCAGACANGCCNNNGAANANGNNGCCNACNNNAAAAAGAAGNNGN
GGNGCGCCANNGGGGAGNAAANNGGAANNANNAAAAAAAGGAAAANGNGAANGAAN
GAGGANAANANNNGGGGAGGGGNAANGGGGCGGGGNNNAANGCCNAANAANANNNAGN
NNNNGGGGAGGGCCNG

Sequence 841

AGGTACCTTACCACCCCATCCCCAGAGCATTGCATGGGGTGTTTGGCACACAGTAGGTGC
TCAATGTAAACGTGTGCACTGTGGCATGTTAGAGCCAGACAGGATCTCATCCAGCCCGTT
CTCTGCACCCCTCCCTCCCCTCTCCAAGTAGCCCTGCTGTGGGTTCAAGTAAAGAGGGGC
TGGGGCGCTGGTCTGATTGTGTGGGTGATTTGGGGAGATCTCTTCTCTCCGGAACCCC
AAAAGGTTGGGACAAACACAGCAACAAGCCCAGCTCCCTGAATTTCAAGTATTCATTTGT
GGGATAAAGGAGTGAATGATAAGTGAAGGACGACTGTCCCCGCG

Sequence 842

TAGGGCGAATTGGANCTCCCCGCGGTGGCGGCCGAGGTACTCCAAAAGGCTATGAAATN
GGGAAAACCCAGGTGATTCATGCCTGCTTAGCTGCAGNATNTCAGTNGCANTAGGTGG
AACCCCAAACCCAGNGCANAGTGCCAGNGTCTGCTTNGGTGAGATATGAGTGTCAAGTCT
CGAACCAAGCAACCTATCNAAAGCCTGNGACACTCCTGGCCACAGGCGGNTGGTANAGGC
ATAGNANACTATTGCCAGGTGACGTGACTTCACAGATGCTGGGAAGCCTGCTGCCCCAT
CCAATACAATACTGCCCACTGTGCATAGAAACCAGATTCCAAAGTTAGAGCTTCGTTTTG
GCCATGAGTGCAATTTCACTGCAATGTTTTATCTTACTCAACTGCCAGGGTCAATTTAGG
TGGTAGGGCTAAATCTCCTTCTTTATATTGGTCCAAATGATTTTCTGATGCTGCATTC

TABLE 1
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CCGGA

Sequence 843

CCGCGGTGGCGGCCGCCGCGGGCAGGTAAGTGTGCTTAGACCAGGAACACAGGGAGGTAGAG
GGCAGCAGAGCAGGGACTGGCTTCAGAGCCAGACAGGTGGCTATGTGACTTAATGTGTCT
GAACCCTGGTATCCTAGTCTATTAAATGGTATAACAGCAGCTTCTAGTATGTAAGTTCCT
TGTCGGGAGAAAACTGTTTTGCTCATGGCTGGAGCCTTAGCATGTTGCATCATATTGAA
CATGTAATAGATGCTCAATAAATATATTTTTAAGAATAAATAAATGTAAATGAAAATTAC
TTCACAGTGTCTGTAGAGATTTTATAAGATATGGTATACACAATGCATAACATAGGAA
CTGACGCTCAAAAATGCCAGTTACTTCCATCATTGNGTCATAGGCTTTTATGTTTCATTAT
CCTGCTGCATCATCCCAAAGAA

Sequence 844

CCGCGGTGGCGGCCGAGGTACGCGGGGAGGTGATGCCCGTGTGAGCCAGGAAAGGGCTGT
GTTTATGGGAAGCCAGTAACACTGTGGCCTACTATCTCTTCCGNGGTGCCATCTACATTT
TTGGGACTCGGGAATTATGAGGTAGAGGTGGAGGCGGAGCCGATGTCAGAGGTCTCTGAA
NTAGTCACCATGGGGGAAAATGATCCGCCTGCTGTTGAAGCCCCCTTCTCATTCCGATCG
CTTTTGGCCTTGATGATTTGAAAATAAGTCCTGTTGCACCAGATGCANATGCTGTTGCT
GCACAGATCCTGTCACTGCTGCCATTGAA

Sequence 845

CCGCGGTGGCGGCCGCCGCGGGCAGGTAAGTCTAACCCTAAGGGATTCTACAGCTTTTCT
GCATGTTAAATAGTCTGTTTATGCTTATTCTCTTACTTGTCTTGGTTTTTACTTTGA
AAGTTTGCTTAATAATCATGGGAATATTTAGATTTTAAATACAAAATATACAAGCTAA
ACTTGAGAGCAGTTTTTATGTTGTAGAACTGTTTCTTGAAGTAATTGACTTAGCGTTTGC
TCTGCCTCTTTCTTTCTTACCTAGGTAGGTAGTGGGGACTCCTTCAATTATCTGAGCAA
TTCAAATCTCAGAAATGATGTTGGGTAAATTGAGGGTT

Sequence 846

CCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGTACACCACA
CTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACG
ATGGAATCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTG
GTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACC
TACCAGTTGGNGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGC
AGCTCCAGCACCCAGCACTTCTACCTGAATTTACCA

Sequence 847

TGGAGCTCNCCGCGGTGGCGGCCGNGGTACTCCAAGCAGTCCCAAAGTGGGAGTNCTTAA
AACACCATGGGCAGGTGAATGGCTGACCAGGTGGAGGTGCACAGTGCACCATGACAAGAG
CAGTGGAAAATGGGTGAATCTGAGATGCCTGGAGGCGAGGGGGGAAAGAGCACATCACAGA
GGACAACGTCCANNGGACACCCCTTTTATA

Sequence 848

CCGCGGTGGCGGCTGTGGACTGAAGGGTGAAGTGGTTCCACTGTGGTCTCCATGGGAACAA
GTTGTTTCTGGAGTCTTCCAAGGAGAATTTCTCACAGTGGACCTGATCTCTGGGCTGATG
CTGGGTTCTTGGAGCTCATGATTTTGAAGTGGTAGACATTTCTGGGCTTCTGGGGAT
GTGCCTGCTGGACTGCTCCCCGTCTCCTCTGCTGGGGCAGGCCACGTGGAATTTCTTGT
GCTGCCTGGCTTGACATCTTA

Sequence 849

CCGCGGTGGCGGCCGAGGTACCTGAAGAATCTCTCTTCAGCTCTCTTCTCCTGGAACTT
GAGTGGGGCAGGAGGAAAAGCGGAGCTAGGTGTCATTTTAAATGAGGAACATACTTGTCTC
CTCCATTTATCTGGCCCTCCCTGATGGCACTCCAGAATCCAATCCCACACGATTAACAA
CATAGTTTCCCTTTTCTGCTTGAAGGTCCATTCTCCTCTCAATTTCAAATCACCTGAGAT
ACAAAGCTGCATTTCCCCACAAGAACCAGTTCCTCTCCTTTCTTCAAGTGCTACTGTCC
TTCTCTCAGACCACCAAGCTTAAAACTCCAGAGGCTCAAACAGCAAAGATGGCAGCCCG
CTCCTCCCTCTGGGGAGTTCTGGCCAGGGAGTTTCAAATTTCTGTAGGCGGAAGAATA
CTAGCGGGGAGTGGCTGGAGACCCAGTTGGTAGGGNTCCACATTTGGGGGAAGTGAGCC

TABLE 1
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CAAGCTTTTNN

Sequence 850

CCGGGCAGGTACATGAAAGTAAGATCACAAACCACAGGAACCACACAAAATTCAAGGCACC
AGAGGAGCCCAGACTTGGCTGGCAATGCCTGTTTTGGAGCTATTCCACATTTCTGGAAGT
.CAATGGGAATACCGGAATATGAAAACTATGAGGCCGGGCACAGTGGCTCACGCCTGTA
ATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCATGAGGTGAGGAGTTCGAGACTAGC
CTGGCCAACATAGTGAAACCCCATCTTTAATAAAAATACAAAAAATTAGCCGGGCGTGGT
GGGGGGTGCCTGTAATCCCAGCTACTCCGGCGGCTGAGGCAGGAGAATTGCTTGTACCTC
GGC

Sequence 851

CCGGGCAGGTA CTTT TCTTTTTCTTTTTTTTTT GAGTGGGGGCGGGGTTTCGCCA
TGTTGGCCAGGCTGGTCTTGAATCTCGGGTGATCTGCCCGCCTCGGCCTCCAGGGTGCT
GGGATTGCAGGCGTGAGCCACCACGCCCGGCCTCGATATATTCTTACAGTGAATACTGC
TCAGAAATACTGATGAATCTTAAAAAACATGATGTTTAGCAAAAGAACCTTGGTATAAGG
TTCTTGGTATAAGGGATACATACTCTATGATTCCATTATATGAAATTCTAGAACAGGAAA
AACTATAGTGAAAAACAATCAGATTAGTGGTATCTGGGGTAGAAAGTAGGAGGAGATTGA
TT

Sequence 852

CNANAGGGGCTTTTTGGGGGGCAAAACCGCGGNGGCGGCCGCNCNAGAACNAGNGGANCCCT
 NTTGGGGGGGGAAAAAAACCCCAAGCCCACCGANACCGNCGACCNCGAGGGGGGTNCCGG
 NACCCAGNGNNNGNCCCCTAAANAGAGGGNNAANNGCGCGCNGGCGNAANCANGGNCAN
 AGCNGNNNCCNGNGNAAAAANNNGNANCCGCNACAATTTNTCTTTTNTAGNCGAGCCGGG
 AGCAAGAAAGCCNAGAAAAAAGN

Sequence 853

AGGTACCCACAGCCCTTTCTTTTGGAAATCCCTAGAAAGGGGTCTGTGCCACATACAGGAA
GTAGGGAGGGTGTCTTTGCAGCATATTTCTTCTTTGGAGTTAACTGCGAACGTTGCACG
GCGACCTCTTGATCCATTCTGTGAAAGCCCCAAGCCTGTCATGCAATAAAGACGTCCAGT
TTCACCGCAGCAGGGAGGCCGCATGAAATATTCACCTTGAACAAAACCACTTAGCAGTTT
ACATCAATGCTTACCCTGTCGCATTGAAAGTGATGTGAACCCACACCCAAGAGCCCCCAA
ACCAGCACGTTGATACCAAGTTTCCCCAGCTGCATCCAAATCAATTCTTCTT

Sequence 854

[illegible]

Sequence 855

CCGGGCAGGTACGCGGGCTACACACAGTTTCGGATGCCAAGGGTGACACCCCATTCCT
TCACAAGAGGCGGTTCTGTCAAAATCAGCACTCCACCCCCACCACACCTCTCAGTGAAT
GAAGTGCTGGTGGTCTCACTCCCCTGGTGACCTTAGCCGTGGGATGGGGTGGTTACACT
AAGGCTTCAAGCTGAGAATGGCCATCATGGCGGGAGGCTGTTTGCAAAGGCACCTTCTGT
CATCCTGGGGTTGGCTAAGTCAACTCCACCCCTTCCCAAAAAAAAAAAAAAAAAAGTACCT

Sequence 856

GCCAGGATTCAAACCAGGGANTTTGCTCCAGCACTCCGGCTCTTAACCTCAACCGTCTGC
CTCTCCACAAACACCAGGATCAACCACCAAGACCAAAAAACAGTCTCACAAACCATCAA
ACATTGCACCTGGTGGCTCAGGACCTTAGCTTCGTCTTAAAGGTCCCTGTTATGCTTTTT
CTTTTTGCCCCAGTGTGGAGTGGTCTTCGTGTTTGTGAGTGCAGGGGTCAGGGGTTGTGT
CTTTTCTTCTGTNCCCTTCCAAGAGGTGACATGTATCCTTGATACTGGAAGGGCCCTT

Sequence 857

AGGTACGCGGGCACTCCAGCCTAGGCAACAGAGCCAGATTCTTTTTTTTTTTTTTTAAAA
AGTCTTTTAAAAAATTCTTTATTGTGCTGATTTTATTGTGTCATGAAGTGTAATATCGC
ATGTAGGTATGTGTCAAGTATACAGAGTGTCAAGGCATACGGTGTTCAAGTCATAAGCAGTT
CTGGCCTTTGGCCCTGCACTGTTTGTGGCTTTTTAGGTAGGAACCTTCTTAGAGTAAGA
CTGTCATGCTAAAATTGTAGCAATCAAATGTGCCCCCATACAACCTATTTGAGGTTGAG
ATTATGTTGCTAGAGTGGAGGAGATTGGAGTGTCTAAATGCTAACAGTTTGTCTTGCCT

[illegible]

GGCAGGTACAACCTCCATCCCCTGGGCTCAAGCGATCCTCCCATTTCAGCTCCCCCTGTA
GCTGGGACTACAGACACACACCACCGTGGCTGGCTAATTTTTGTATTTTTGTAGAGGCA
GGGTTTTGCCATGTTGCCCAGGCTGGTCTTGAACCTCTGAGCTCAAGTGATCTGCCTGCC
TCGGCCTCCCAAAGTGCTGGCATTACAGGCATGAGCCACCATGCCTGGCTGGGACATTAT
TCAAATTGAAGTGAGGACATGATGTTAAAAAGTTCTGGGCAAGTATTTACAAGTAAAA
TACAGATGTAAGACTTGACTTGATCAAATGCCCAGCTCTGTAATTCACCTAAATTG

AGGTACAACATTGTGAAAATTTTCCTATCATTTCTCTAAAACCTCTGCAGGCATGGAGGC
TGTCTGCTGAGATATAGCAGGGAACAATTTAACCCCTTGTTTTGCACCCACAAGATGAGC
ATTACCAAATTCCCAACAGAGACATGCTGGGGCTGTGCTGTGCCTCCACCCTGCCCCCTC
CACAGCCGAGCTCCGCGTGTCTCAGTCTGTAAGTCATAGCATTCCACTTCCTGCCTGTACC
TCCCCGCGC

CNCGCGGCGGCGGAGGNACACNNANAANAACCTTTTAAGGGGNGGAAAAACCCAANCCCCC
CGNCCNACCNCAGNGACNNGANGNATNTACNGAAACAGGGCGCAGCCCNAGGAAGGACA
GNNGAAGNCCNNACNGNGCAAGNCNAAANNNNNAAGGAAAAANNAGNCCCGCGANGAGNNNC
CNCANGCTTTNNNTNTGCGGGGACCAGNCAGGGGNCGNCCCCGACANAANCAGGGCNCGC
CGNCGGNGGNAGAGNCACNNNGCAGGGGNGGNGAAGCNGCNCNCANCCANGGACCNNGG
CCGCNCNAGAACNAGNGGANCCCCCGGGCNGCAGGAANNCGANANCAAGCNGANCGANAC
CGNCGACCNNGAGGGGGGGG

AGGTACTTTTTTTTTTTTTTTTTTTTGGNAGAGATGGGGCTTACCATGTTGGCCAG
GCTGATCTCCAGCTCCTGACCTCAAGTGATCCACTCGCCTTGGCCTCCCAAATTGCTGGG
ATTACAGGCGTGAGCCACCGCACCCGGCCAGTCTTCATATTTATAAATAAAGTCTTGTG
GGAACACAGTCACATTTATTCATTTACATTTTGTAAATAGCTGCCTTCAAGAGGTAGAGT
TGAAAGTCTTTAAGACAAAGATCAGGTGGCTTGCAAACCTAAAACGTCTGGTCTTTTAC
CTAAAAAGTTTGCCAAACCCAAAAACAAGAATATATTCGATTGTAATCTTACAAAGGTGT
TGGCTATATTCAGTGTGT

NCTATAGGGCNAATTGNAGCTCCCCGCGGTGGCGGCCGAGGACAAATTCAGTCCCAATAC
 TCAATACGTATTATAGATGACTATGAGTGCAAACCTTAGGATGNGATTNTCTGAATAATN
 GNTCTTTGTAGGATTTGGTTACATTATTTAAAATGAAAAAGATCTAGTTTTAGTGAGC
 TCAGTAATGNTAATNGGTTAAGTTCATTGCGAATCTTGAGTTTTAGATAAGTAGTTATTT
 TTTTCAATATCACTTCTGTTTTAGTGATATTATATCAAGAAACAACGTATTCAGAACC
 ATGGCTGACAGTGCCAGATATACTTAGGGATAAACATCAAAATGCAATTATAGTTGCTAT
 AACGTTAGATACTCGGAATCAAATTTATTTGCANGCTGACTTGATAAACTAAATGAA

Sequence 864

TABLE 1
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TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAGAGTCAGCAG
AAATGTGTGCTTTAAGCAGAGTCACAGGGGCCTGGGGCTGAACTGAGTCATTTCTCAAAG
ATATCCCTGCCTGGGATGATGATGGCTCTAATTGAAGCTCTGGCATCATCTGGGGCTTTA
TGAGCCAAGGGAGATAAGAAGAGCCACAGCAAAACCCTTGGGTCTACAGTGCAAGGCTGCA
ACCAAGGCAGCATTTGCTAGAATATTTGTGATTATGTGTTCAACCTACAACCT

Sequence 865

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCATATTAT
ACCTTTTTATTGTTGTTATAATTATTATGGGGTATTTCTAATTAATATGATGTTGAAACC
TGTTTGGCACCTTCTGGAAGCTACCAAAAAATGACACTCCATTGAAGTGCTTAAAAGCT
GTTCTCATAAGAATTCTACTGGCCTATTGTAAGAAAAAGAAAAAGAAAAAGAAAG
AAAGACACAAAGAAAATAATCTAAACACCAAAAACTAAACACAATTCCAATCCTTTTTCT
GTACCT

Sequence 866

ACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGGAAATCTGGACAGTG
CTGCACAGATTGATACATTAGCCTTTGCTTTTTCTCTTCCGGATAACCTTGTAACATAT
TGAAACCTTTTAAGGATGCCAAGAATGCATTATTCCACAAAAAACAGCAGACCAACATA
TAGAGTGTTTAAATAGCATTCTGGGCAAATCAAACCTTGTGGTTCTAGGACTCACA
TCTGTTTCAGTTTTCTCAGTTGTATATTGACCAGTGTTCTTTATTGCAAAAACATATA
CCCGATTTAGCAGTGTGAGCGTATTTTTCTTCTCATCCTGGAGCGTATTCAAGATCTTC
CCAATACAAGAAAATTAATAAAAAATTTATATATAGGCAGCAGCAAAAGAGCCATGTTCA
AAATAAGTCATTATGGGCTCAAATAGAAAGAAGACTTTTAAGTT

Sequence 867

CCGCGGTGGCGGCCGAGGTACATAACATGATATCAAGGAAATGCTTGAAACAACTTTCA
CAATAAAGTCAGAAAAAACTGTAAAAATTGTCTGCAATCCAAGAAAAAGCACGTGCCCT
GTGTGTAGGGGGAAAGAGGGAAAGCACTTGCAAGTGTGACTTTATGTGGTCTTTCCCAAG
TATTGCTACGTTTTGACCTTTGGCCCACTGAACAGGTGAAATGCCCTTCACATAAGTTT
CAATCCCCAAGAACTAGCTGGAATGCAGGGGACTGTAGACACACTCCTGGACCAAATGG
CATCGACTCTCAGAATCCAAATGGGCCCTGCCCTCATTCTGAGCTTACGGCCCCAAGCA
TATTCTAAACAAAGCTTTTTTAA

Sequence 868

CTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACAGGATATCAC
CTGAATTATTAATGAATGCCCAGGAAGTAATTTCTTCTCATTCTTCTAAACTACTGCC
TTTCAAAGNGCACACACACCCGCTNCACATACACTGCATTCTGTTGCTCCAGTATAAATTA
CATGCATGAGCACCTTTCTGGCTTTAAGCCAATATAATGGGCTGCAAAATGAAGACACC
ANAGTGTATGCATACAAATCTCACTGTATTAAGATGCAGGTTTTCTAATTGTACCT

Sequence 869

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGGCGACGCGCGGGACAAAG
GGAAGCGAAGCCGGAGCTGCGGGCGCTTTTCTGCCCGCGGTGTCTCAGATTATTCTTA
AGGAACTGAGAACTTAATCTTCCAAAATGTCAAAAAGACCATCTTATGCCCCACCTNCCA
CCCCAGCTCCTGCANCACAAATGCCCAGCACACCANGGTTTGTGGGATACAATCCATACA
GTCATNTNGCCTACAACAACTACAGGCTGGGAGGGAACCCGGGCACCAACAGCCGGGTCA
CGGCATCCTCTGGTATCAGATTCCAAAACCCCCAAAGCCACCAGATAAGCCGCTGATGC
CCTACATGAGGTACCT

Sequence 870

GACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGG
ACCCGGAAGTTTAAATTCGCTCCCTCCACGAAAGAGTTGTAGTGAGTGAAAAATAATAT
TAAACACACGGAAATGTATTTCTGGCTGCAGCACCNGCCATCTTGCCTCGGNAGGAC
TCATTTTNAAAAACAGCAGCTTCTGAAGCCCCANAACGCATTCTGTGCTACGG

Sequence 871

CCGGGCACGGTACAGAGCCCAAGACAAAAGATAGGCCTGTGAGGATAACATCTGGTATAT
CTGACCCTTCCCAGCATGGCCAGGAGGCACAGCCAGGCCAGGGAGGGCATACTGGGTTTG

TABLE 1

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GCTTTGCCCTGCAGCTGTTGGCCTAGGTGCTGCGGTACATACATATGCCCTNAGGCCTTTC
CATGGCTACCTACCTAGAACCCAGATTCTTTTTTTTTTTTGGAGACGGAGTCTCGCTCTG
TCCCCANGCTGGAGTGCAGNGGCGCCATNTNAGCTNACTTGCAAGCTNCGNCTTCCGGG
T

Sequence 872

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATTCGGGGTCATCCGCA
GAAATTCCTCATAGATGGTAACCTCTGTCTACTCTCCGAGCCAGTGGCGAGAAGTTACACA
GGGAGTCCACCCCGGTGTGGTGCCTGCTTGNGGACAGACCTGAATGTTGAACTTGACAG
TCAGAAAAATAACTCTTGATGCTGCTGTTTCGGAAGAGTTGGTTGAGCGCATCCTCAATA
TTCTTTTGTCTCTGGNAATTGGTGGTGCCTGGCTGGGCTTTGTCTGGGAATATGGT
AGGTTGGTGATGGTAGAAATTCAGGTACGAAGTGCTGGGTGCTGGAGCTGCTTGTTGGTT
GATGAACTGATGACTCC

Sequence 873

ACTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCCGCCCGGGCAGGTACAATGCTCACT
GGGAACCAAAGTCAGGCATGGGGCTGGGCTTTAAGGAGCACAAACAAAAAGGAGGGACTA
GAAACTTCAGAAAGGTATTGGTGGGGGATGTTGCGGGGGGACAGGGGACAGCGAGGATG
TGGGATCCCGAGATCGTCCAATCCCTATGTGTAGACATATGTGTATAAAGGCCCTTTAAG
AGACTCAGGCTGATGGGGTATCTGTAATAAATCAAACATAATATAACAGCACGTCAAGTG
ATAAGGGGACTCTGGAAAAACAAGCAGCAAAAGGAGCAGTATCAAACCTCCACAGAAATTC
ACAAACATCAAGACACCAAGAAAGCTGCATTNATTTAAATCAAGGTGACAGGCTGGGCTC
TGTAAGCTCCAGCCTGTAATCCTAGCACTTTGGGAGGC

Sequence 874

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCAGGTACTTTTTTTT
TTTTTTTTTTTTTTTTTTGGGATGGAGTCTCGCTCTGTCAACCCAGGCTGGAGTGCAATG
GCACAATCTTGGCTCACTGTAACCTACACCTCCCGGGTTAAAGAGATTCTTCTGCCTCAN
CCTNCTGAGAAGCTGGGACTACCAGGGGATCCCGCCCCACCCCGGGTAGGTTTTTTGTAT
TTTTTTAGNNAGAAGACAGGGTTTTCCNCCCATATTGGGCCCAGGGCTTAGGTCTCGGAA
CCTCTGGACCCTTGNGGATCCTGCCACCCTTGGGCCTNCCAAAATGCTGGGGATTAT
AAGGNGGGGAGCCACTGTGCCCGGGCCAACAATAAATTTTTTTAAGGGTTAGTCAAACCT
AACAACAAAANTTTAAAAGGTCAATCAGTAGTCTAACTTTTTTTTTTT

Sequence 875

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAGACTTTGTAA
ATGTGATTACAGGGCCCCCAGCACCCCTGTGTCTGCAGAGTGCCTTCAAACCTCAGCTGTT
CCGGCCGGTGCCAACCTGTGAACTTCCACCATATCCCAGAATCTGCTATTCCCCAAACC
ACTTCCCAGTTTCCTTTCAGTAATCTTCTGAAGGAGCCAGGACAATAGGGCCTGTTGTT
TAGTGAATTTCTTATTATTTTCAGCCTTTAAATGTAATTTCCATCTCTTGCAATGAAT
TTGTTTCCCTTTTTTTTGCTTCATTTGTTTAAATTTTCAGGTATTTAGCTCCCCTTTCA
TATTATTTTAAATTTTAAATTACCTGTTGTAGGGGTGTTCTCCAGAAGCAAAGAGCA
AAATTTTACTGTTGTGATGTACCT

Sequence 876

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCCGGGCAGGACGCGGGATTGA
TCAAAGCTTTGTAACACAGGAAAAAATAAACTCTTCCATCCCTTAAAGAATAGAATAG
TTTGTCCCTCTCATGGGAATTGGGCTGTATGTATATTGTTCTTCTCCTTAGAATTTAGA
GATACAAGAGTTCTACTTAGAACTTTTCATGGACACAATTTCCACAACCTTTCAGATGCT
GATGTAGAGCTATTGGGAAAGAACTTCCAAACTCAGGAAGTTTGCAGAGAGCAGACAGCT
AGAGATAACTCGGGA

Sequence 877

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCAGGTACAAGTCTTA
AACTGCTCTGCTCTTTAAACCAAATACATACACACATACACAGATATAGTTAGATACAGA
TGTGTGTGCATATAAAAATATGACACTCCTTAGTAAAATATTCCTCTAGACCTGGGGTTC
ACACATCCCTCCTCCTGATCCGTGCTGGTGCCTACTCAGGCACTACTTGCAGATTTCTC

TABLE 1

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TTCTATGAGCTAAGGTTTTCTGAGCTAAGGTCAAGCGGTGACTTAGCAAGTTGAACGTG
TAATGAACCAAACCTGTTTTCCATGGAACCAATAATAATTAATCTAGAGTGAGCCATTT
GGCCTCCAGAAACAAAGAGATTTCCATCACAGAGTGTTGGTGAGGGGTCATGAGTAAGGC
GGGGGGGCAGTGAGAGCAAGCTGTTTTATTGTGAGAGTAGCAGGCAGGCTGAATGAGAAG
GGGTAGCTGTT

Sequence 878

CTACTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCCGGGCAGGGTACCATTCC
GGGTCATCCGCAGAAATTCCTCATAGATGGCAACTCTGTCTACTCTCCGAGCCAGTGGCG
AGAAGTTACACAGGGAGTCCACCCCGGTGTGGGTGCCTGTTGGGACAGACCTGAATGTT
GAAACTTGACAGTCAGAAAAATAACTCTTGATGCTGCTGTTTCGGAAGAGTTGGTTGAGC
GCATCCTCAATATTCCTTTGTTCTCTGGTAATTGGTGGTGCCTGGCTGGGCTTTGTCC
TGGGAATATGGTAGGTTGGTGATGGTGAAATTCAGGTAGGAAGTGCCTGGGTGCCCGCG
TACCTCGGCCGCTCTAGAACTAGTG

Sequence 879

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTTGGGGAATAACAGGGGAGAGCAAATTTCTAAAACTTGGGGTTTTATAGTAATTT
CTGATTTTCATGTTTAGAAAAAGAAATCACATTAATAATATGCTTTTTTAAATTTTGAG
ATAGGATACACTATAATATTATTGTAGTCCAGAAATCTGTATACTATAATTCTAGGGA
AAAAGAGAAAATTATTAGTGTCAAATACCTATAATCCCACAGTTACCATATACATTTT
TAAAAATTGTTAAATACACAAACAATGATGATGCTGTCCTACTAGAAATGACAGGAGCN
AGAGCTTTTACCTTTCTTTCAAAATGCCTTAACCCCTTTCATTATTNCCAAGGTTCAAA
ATTTAAANATTCTTTTTTTT

Sequence 880

CNCTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATGGCGCAATCT
CAGCTCACTGCAACCTCCACCTCCTGGGTTCAAGCAATTCTCCTGCCTCAGCCTCCTGAG
TAGCTGGGATTGCAGGCATGTGCCACCATGCTCGGCTAATTTTTGTATTTTAGTAGAA
ACGGGGTTTTCGCCATGTTGGCCAGCTGGTCTCCAACCTCAACCTCAGGTGATCCACCGG
CCTCGGCCTCCCAAATGCATCTCTGGTCTTTAAATGCCCTTTGCTGTATATTCTATAAC
ATCAAGTCTCAGATCTGGTTTGACCTCAGTTGGCCTCTTAATAGTTTTCCCCTATGAACA
TTCTGGTCTCCAGTAAGCCTGTAAGCAGCTGAGACTGGGAAACCATCTCTTATATCCCA
CATCGTCCCATG

Sequence 881

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCACACTGGTAAAGAGTGGCAAGGTAGC
CTTTGTAACCAGATATATCTGATCTCAAAATCAATTTTCTTAATTTAACCACGTCAGTC
AGTCAAATGCTAAGGCTCTTCAAGCTACACTTGGTTCCTCCACCCTCTAAAAGGTGAGAA
CTCAAGAGAGCTGGGTTCTTTGGGACCTTATCATATTTTCCCCTCCCTAGGCCTTGATT
TCCCATTGGAATAAATCAGTGAGGGCTTTCTAGTTAAAAATGCCAGTTGAAGCCAGG
CTTGGTGGCATATACATGTAGTTCCAGTTACTCAGGAGGCTGAAGTGGGGAGGATCGCTT
GAGCCCAGGAGTCCAGTCCAGGCAACATTGCAAGATCTCATCTCTAAAACTAAAAATG
GACCAAG

Sequence 882

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTAATGAATTGAC
AAATGGAAGAAAATTTAAGGAGAGTAGCCTAGAGAACTCATTCTAGAACTAAATAACTT
AAGTCAAAAATTATTTCTATATTGCCTCAAGCCCTGCAGATAGCTTTGCTATGTTGTG
TATTTGCACATTGCACTCCAGCCTGGGCGACAGAGACTCTGTCTCAAAAAATAAATGGA
ACAATCACACAGAAACATTCCCTTATTCATCTGAACATTTCAAACCTGAAAATGTGTAA
TGAGAAATGACAAATTTTAAAGTTTAATTACTAAAGAAGACAAAAATGTCTATTATG
AATAGACCAATTCTCAATTGGTAGAGGAACCTTGAAGTGGAAAGGAACCCTAAAGAAATC
TCCTGTCTACCCCTGTTATTACAGATTAGAACCCGAAAGTCCAG

Sequence 883

CCGCGGTGGCGGCCGCCCGGGCAGGTACTATAATTATAATGATTTAGATAGAACATGCA

TABLE 1

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ATTAGCCTTTTGAAATCCAACCTTCTGTGCAAAATTTTAGTATCAGAAAATACGAGATTG
CAGGGGGAAACATCAGTAACTACCATTAAATGTCAATGCCAGTTTTGACTTTTGTTAGC
CTGACACTCCCAAACAGTTGTAGAATCCGATAGATGACTGATGGCAAAAGATTGTGAACA
TGTGGAAGAAAATCAGTGGGATTCGGTGCTGATGAATAGGTTGCCTTCAGAGTATTATTG
ACAGACAGCTTGTGGAACATAATTCTTTATTTTGTGTTGTGGGAATTAACACATCAATG
GTGGTTATGGGAACCTACCAATGGGTTCTACAAT

Sequence 884

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAATTCTAAATTATAAG
AAAATATACATTTGCACTTATTAATATAGAAATTCATTTTGTGTATATTTAACATAGCTT
TTAACTATTTTACATTAGCTACTTTCATTATGGTTTCTTGAACCTCTGAAAAAATTAG
AAATGTATTAACTTATCAGTAACATAAAAACTTATTTTGTTCACCTAACGAATACTGC
GTTTGTAAAAATAAATTAATATAGAATATATTTTAAATTAAATATTTGAATATAAAAT
AGCTCTAAGAAAGAAGCAAATTATCACTGAACATATTTCTTATTATTTCTGGCTTTGAAT
TAATACGTAACCTAAATTGGCTTAAATGATCCAGAATATTGGAGGAATATGATACTTTCA
CATAATATACTATGAACCTGTTTCATATAACTCTGGATTGGCTACCTAACCTTCTGNTTA
ATG

Sequence 885

CTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAAGTCACACCCAG
CCAGTCAATAACTGAGAAATCAAAATAAAATAAATTTCAAAGAATTACATAAATACAG
GGCCTTTTGAGATTTTGGCAATTGTAAACAAAAACGAATGGTTTTTACAATTCAGTGTA
ATTCTACGAATATTTATTTGGCACCCATGTTAGGCACTGAGGCTACACAGCAGTGAAATA
GGCCTAGTTGTTCTCAACTAGAGAACATAGTTGGTTAATGTAGCTGCACTGAATTGTAAG
CTGTTTAGAAGATAATATACCCTGAGGCTTTTAAAGTATACTATTACTATAAGGAAGTA
AAATTATTTTATACTTATAAATTTTGTTTGGATTATTCAACTGAATTTGGAGTGTTGAG
AATTTTATGGGCGGTTGGGGACAAGGAAGAGGTATAATGCTATTTTTTTCCTTTCTTT
TTT

Sequence 886

CTACTATAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTTTAAATTTCCACCGGTGCCGAGGCCTCAGTGGAGCCTGGCTGGCGGCT
TGTTAGAGCCTGCAGCCTACCTGTCCTGCATAGGAATGAAGCCGGGAGGAGTTACATGAT
ATGCCCTCGTTGCAGGCCGGGGACACAGCTACCGCATTGAGAGACCAGGAAACAGAGCAA
AAGCTGTTCTCANAGTGCGGCTGAGCGAGGAGCTACAGGGGAATGGNGGGGGCCAAGCTG
CATGGAAGATTGTCCCATTAACCTGGCTTTTTACCAGGGTGGTCCTNTCCCTAACCCCTA
AGAATCACACCCTGCATCCAAACGGCAGCAACCCCAAAA

Sequence 887

CNCTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTT
TTTTTTTTTTTTTAAAGCTGGGATATCTTACAGAGGAAGGAAAAATTAACCTTTTTTACTTT
CTTTCTCACTTTTTAAATCAGCCAAAGTCAAAGCCCGTTTGCCAACCTGCATGTCCATGC
CTGTAAGCCCTTCTNTTGGCCAAGGAAGAAAGGAAGAAAGAAAAAGAAACCCAGGGGGCC
TGTATCCCCTGATTAAACACAGCACAGCACTCCAGGCAGACATGCCCGGNGGCGGCTCCT
TTGCACCATTTGACCTCAGGCCAGACACCTCAGCGCCAACAATGGGACCTCGGCCTTCCGG
CTAGGTTTGCCCCAGGCTGGGCAGGAAACCAGCTCGGCCGCTNTAGAACTAGGTG

Sequence 888

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGAGAGACATTGTGGCTAGCCAACCACA
TGGTCAGCCTCAAAGTTGAGAGGCTCAGTAACCCTCCTATCCCTAGAGAATTCCAAAGTG
TGGATGTAATTTAACCTAGGAAAGCCATTGGTGACTATCTGTGATCCTCTGGAAAGTATG
CTATGTTGGGGTATATCTTTGCATCCAAAGCCAGAGGGGAACCAATGGCCTAGTAAAA
CCGGTGGGTCTCAAATGCCCACTTAAGCCTCTGGCCTNTTGGAAANTTTGACCCATAGTG
GGCCGTTGAGCTTGATTAGAGCCGGGGAAAGAAAGAAATATTGNCATTTTTTTTNTTGA
AAAAAAATTT

Sequence 889

TABLE 1

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CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGGATCTATGCTGC
TATGGGTGGAGAATCGACATCCTTTGAACTGGCCACAGGCAGAGCTAAGAGGATGACTA
AAAGGTCCCTTGGGTGGGTGCTAATGAGCAGGGGCCAGGAAAACCTCTGTCTTCCCGGA
GAGCCCTCTTGCATGAGTTTCGGCTTGGCCAAGATTCCAGGGACTTGAGGACAGCTATTG
AGTTATGGTTACGTGACTGCCACATTGGGGCTTGGAGGCATCTGGCAGATGGTTGGGAAT
GGGCTGGCACCACACTAATTAGGCCACGATGATCCAGTTTGACTCAGGGAACCCAGAAG
TCATAGTNCTCTTTCGAGAATGACACAAGGATGTCAACATGCTTTGNTTGTGTACCTCGG
CCCGCTCTAGAACTAAGTGGGATCC

Sequence 890

CCGCGGTGGCGGCCGAGGTGCATATATATATACACACATATATATTTATGTATC
TTTTAAACATATAATTACTCTCTTTAATTCATTGGACTTTTCATCTAACTTGCTCTGT
TTGCACAGGTCTGTTAGGGTAAGATATGTTCTACCTTGAGAAATGTTGTGAATATCTAG
CGAAACACCAACATCCTCAGCTGACTAATGTGGTATCAGACTTTCTGGTTGCAAGGTAG
GGGTGAATAAGGCAGGATGGGGTGGGGGGTGGTGCTGGAAGAAGACATGGCATCAGGTT
GGGTTTTGCAGGATACTGAAATTGTCTAGGGGCCTTGGCTGTGCAAAGAGCCTTCCGTC

Sequence 891

ACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGGCAGGTACGCGGGATTTCT
CAGATAGTTATGCGCAGCTCCAGGCACCAGATTCTGTGCTGGGTGCAGGCAGGACCTGGA
GGGCGTCTCAAGTGTTGATCTGCAGGGACTGTCTTGATCTTCCAGCAGTGTCATTGTG
GGCACGTGACCTGAGCTTTCTGAGCCTATTTCCGCATCTGTAAAGTGCTATCCACTTCCA
CCTCCTGGGCTGTGTCGATGTAGGAAGGAATTGCACTCACACACTCAGCATGAGACA
GGCGCTCAGTAAAAGCCCGTCCAGGGGATATGAGATCAGTGAGGGATAGGAAAGCAAGGG
TGGGTAGAAACAGCAAAACCTTTCCCA

Sequence 892

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGGGNCAGGTACCAAGCATTG
GACACACAAAAATACAGGCAGCTTCTTCCCTCAAGGAGGTCACAGGTGGGTGTGTCCATA
GCAAAGCTGGGAGGAAGTTGTATGAAGGAGCCTGAAGACAATGGGGAGCTAGGGGAAAGT
TCTGAGTAGAAAGGAACATGTGGACAAAGGTTTGAAATGATGAAGACTGATTAGGAAGTT
CATATTATGAAGCATAATTCAAGCTTTCTCTACGATGTTCAAATCCCATCTCTCCTACTT
ACTAGANAGGTGACATTGGGCCAAGTTACTTATCTCCTCTGCTCCTGTTTATTTGTGTTT
AAAAACAGGGACCTCTCTCACAGTGTGATTNTGAAGACTGGACAAGAAAATGGGAGGTTT
TG

Sequence 893

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACAGTTTGGAAGTTT
AGGCAAAAGTCATTTCTTCCCTATATTTTGTGATGCTTATCTCCTGTCTCTTTCTGTTT
ACAGATTAGCAATAAACTCCTTAAACCCAAAAGGTTTGGGCTTCTGTTCCCTTCACTTG
CAGTCAGACATGGAGTTAGTGGTAGAAGAAACAGAAGGGGTAACCTGCATGGTGACAGCT
ACTGAGGGGATGGATAGGAAAGCAGGCTGAGTCCCTGGGGCCAGTGGTTACCAAAGCCAA
GGAGAGGGCAAGGGGAGCCCAGTGGGCCTGG

Sequence 894

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACATCACCTGCTGA
GGGACATCCAGGACAAGGTCACCACTCTACAAAGGCAGTCACTACACGACACATTCC
GCTTCTGCCTGGTCACCACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGT
TCTCCTCCAATTTGGACCCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATG
CCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGG
AGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTNTACCTGAATTTCA
CCATCACCAACCTACCATATTCCAGGACAAAGCCCAGCCAGGGCACCACCAATTACCAG
AGGAACAAAAGGAATATTGAGGGATGCGCTCAACCAACTNTT

Sequence 895

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGGAGTAGTCTAAAACAA

TABLE 1

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GTGACTTTACTACTTATTCTTCTGCATGTCCTTACCAGCTTCTTACCTTCTTCAGGTTGA
GCATGAGATCAGCTTCACAGGGGATGGGGTCTTAAGGGTTTTTCCATACTAGTTTCA
GCCTTAACAATGAGTTTTCAACCCTTAACATGAAAAATAAATAGTGCAGAAAGAGGGGAG
GATGGTAGAAATGCTTTAAATTACCTTTTGTAATTTTACTTTGTTTATGTTTTAATTG
TGCCTTGCTTATCAGGGAAGTCCTACAAACAAAGAACTCCACGGCTTCTTCAAGTCTTCC
AAGGGAACAGGGTCCCCCTGGTTCCTAAAAATCAATGGGAAGTAGGTTTTTGGTAACCAT
CTACTGGTCAANGGNAACCATTCTACCTGGCGGTTTATTACACCTTTGCTAGGCTTCT
TTTTCTTTTTTCATTTTTAAAAATAATTTTT

Sequence 896

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGTTCATATCCCAGTTCTA
GAATCAGTTCATTTTTCTAAGGAGTCCTGGTTCCTTTTATTGGAAACCAAAATCTGGGCAC
CAGGTGTGCTCCCATTTCTAGTCGTTTTCTGACCACATAACTGCTAACAAAGATGCTTAC
TCTGGCTACACTGATGTGAACCTTTGAACCTTAGCAGAAGAGCTCAGCTCTAGAGAACAAT
GAGCTCCTACATTACCTTTTTCTCAAAGAATAAGTAAGTCTAAGCAGAAAAAAATAT
GCAAAGAATTTTCAGTATGAATGAAATAAGACAAACCATCAGGCTTGCTGTATTGTAAAC
CAACACAATATAGTTATAACAGATCTGTAGAAGGGATCCTTAGAATAAGAGAGGCATTTG
TCGGGGGGTTCATCAGGGAGAATACTGGATAGNATCTT

Sequence 897

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTTTTTCTTCATGGCTACATCTGAACAGCTACTGAGGGATATATATGCCAACTTTGGGA
GTTGCACAGCTTTTTGAGGCCATTTNTAANATGACTAGGGACTGTAATTTCTNTTAAT
TTGGAATAGCCACAAGTTGTTGTAGCCAAGGTTTGNGNGNGTTTTTAATACAATTCCTAA
AATTTTAGTAGGCTTCTCATCTGTANATAGATTTGAAGGGGNGGGGTTGCCCTCCACAC
CTGTGGGGTGTNTTCGTAAGGNGGGACCAAGAGACTTAGGA

Sequence 898

CCGCGGNGGCGGCCNAGGTACACCAATGGATTACAAGCAGCATCCAGCAGAAGACAGAC
CCCCAACCCCTGCCACCAGGGCTCACACTCTACAAAACCCTGAGGGCCTAGAAATCTGT
AAATGCATCGNCAAGCACTGGGGCTGATTTGCAGTAATTCTCTAAGCAAGGCAACATGA
TCTAGCTTTGAAGGCAGCATGAAGGCAGCGGTTGGNGAGAACAATCTNTCCTTAAGAGA
AGAAGAAACCTGGGGCGGANGGAGTTTTCCCCGG

Sequence 899

AGCTCCCCGCGGTGGCGGCCGAGGTACATGTTANGGTCTTGAGTTAATTGCTCTGTGGCT
GTGGATTTTTATTTGATGTTCTGATCTCTTCCCTTCCAGTTTGATAAATTAGTGTAGAAAG
TGGAAGAAAAACATGCCGGCGCAGCCTGTGCGCTTGTGAGGTTAACAGAATGGAGTCTT
GCTCTGGCATCAGTCAGTGCTGTTGTCCGAACCCTCTGTGGCTCCTTCTCCTCCCTCCCTGG
GGCCCAGAGCTGCAGACGCTAGAGGGGTA

Sequence 900

GCTNCACCGCGGTGGCGGCCGCCGGGCAGGTACCCTAAATGTTAAACTGAGGGATGAGT
GAAACAATATCAGGATTAATAAATAAACACATTCTTGAATTCCATCACTTAATAGAAGTG
GCCATTTGAATGCTGGCAGGTNGGAAGAAAAGAGGAGGACAAAGAACCCCAAAAGTTTGG
CATCATAACTACTGCCACAAG

Sequence 901

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TGTATTTTTAGTAGAGATGGGGTTTACCCTGTTAGCCAGGATGGTCTCGATCTCCTGAC
CTTGTGATCTGCCTGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCG
CCTGGCCTTTCCAGGGTATTCTTTTAACTGGTCTTATTTGCCTTTTTGAATTTAAGAAA
ATCTATCAGCATCATATACCACCACTGGAATATAAATTTGAAAGAGAGTCTTGCAGATTA
TATACATGAATCTACTTAGGCCTAATAACCAAGCAGTCCTCAGTGGCAGATCAATGAAAA
GTGAAACTAAAGGCAAGTGAAGGGTAGGAGAGATTGGCCAGT

Sequence 902

GGCAGGTACCCACCTCCTCGGTCACCCACAGAGCCACCAAGATTCCATGTCCCAGAGCT

TABLE 1

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TCCCATAGCAGACCTGAAAAGTCCATGACCTGAGCTTTGGCCATGGTAGTGGAGTGGAAC
AGGAAATAGTCCAGCAGAGGAGTGTGGGGGAAGGGGCGAGGAGAGGCACAAGAATAAGGG
AGACCTGGACTCTGCCTTTTTGGGAAAAGGAACCAAGCTCATAGCAATTTGGCTGATNAC
ACAATCAGATTTTTCCAGGTTAAGCTTCCTTTCTG

Sequence 903

CCGCGGTGGCGGCCGAGGTACCATCTACTGAATGCCAGTTTTGATCTATTTCTAAATGG
AGCAAACCAATTCATCTCCTAGAGCTGGAGACTGTATCCAGGCAGTGTGTGGACAGAAC
GGACAATCTTTCTGCCAAGGGCCTATTTGAGTGGAGCACCCCCACACGGGTTAGACGGG
TCGGCACGGGGCTGGTGGGTGAGGAAGTCAAGGGTCAAGTCAAGCTGCAGACCCCTCATTT
GGGGAACGCTCTCAGCACAATGCTCTTACAACACAGGGTGCACCTCCAAAATGGAGTTCA
AGGAAAAAAGGCTAATGAGAAATAAAATCTGAAAAATAACTTAAAAAGTTTTGCT

Sequence 904

CCGGGCAGGTACGCGGGGGGCCCTTTGGATACCTGCACTCCCCATCACCGCACTCCCCATC
GTGGCACTTCCCTTGTTCAGTTTTATGGAGTGTGCGTCTGGCTCCCCAACTAGACTTGA
ACCGCTTGGGTGCATAACTCGGGACTTGACCATTTGCGTCTCCCTACGGCCAGCTCAGCC
TCCGCACACAGGGACCTGCAGAGAGTGGATGTAGCCACTGCCCCAGCGTCCCTGGGCTCT
GAAGAGAAGCCATTGCCCTTCAAGAGCCACCCTCATTTCTGGGCACTGGTTTGGAAAAA
ACGAAGAAAAAGAGACACCCAGCTCACCTCCA

Sequence 905

CTCCACCGCGGTGGCGGCCGCCCGGGCAGGTACGCNNGGGCAACTCATTTCATGATATTGGG
AGAAAAGCAAAGCAAAAAGTCAACAAAATCTCAAACCTTTCTGCAGCAGCAGATGGCA
AACAGTGATCAGAGGAGAAGGACCCCTCCAGCATTAGAAGATTTCCAAAGGCTGTTCCAG
TAGGGGCTGTGGGCTTCTGGGAGCCCAGATGCCCCCTGATGGTATATTTGAGTTTGTGAG
GTGGAGGCCAGGTGGCAAGANACTGCNNGCCAATGTCAATGAAAAGCCTGGGAGGAAAAA
GAGATTTCTGGGA

Sequence 906

AGGTACTTTGCTAACCAGCATTTTGGCTGTGTTATTGGCAGTTTTCAAATTTGAATTCTC
TTGCCATCTTTTGAGAGTGCATAGACATTTAATTTTAAGAAATTTATAGAATTGGACTT
TTTTGTCTCTATACATTTGTAGGTCAGATGCACATTTGTTTCCTGTTTCATCTTTCTTTA
AGAGCAAAAATGTAAAGTTTTGTATGTAGAGGATAATTGTATGATGATGATAAACTAATT
AGGTATTACAGTTTTCTAACGACAGAAATTTGTAATAATTAGGTAACCTGGTTTCATATTA
AAATATTTGATACATAGGCCGGGCATGGTGACTCATGCCTGTAATCCCAGCACTTTGAGA
GGC

Sequence 907

GGCAGGTACCACACCCATCTTACCCTCTTCCCTCTAGGTTCTGACATTCAGCTATCTTGG
TGGGAGGCTGGGGAGCACTATTGGGGATGAGGGTAAGGTGGAGTTTTATAAAGCTCTCCA
GGTGACTCAGAGACCACCCCTATTCCACCTGGTCACAAATCCCTGAATGGGAAACAGGTA
CTTTTTTTTTTTTTTTTTTTTTGCAAAGAATTGTAATAATTTATTGTATAAGTATTGCA
GCTTTTCANAATGTCATCATTGCCACTAATGATTACTGATACACAACAAGCAGTTTCTTC
AGGCCTGTGGATTGGCATC

Sequence 908

AGGTACTTCCCTGAGCAGTCGAAGTGGATGCCAGACCAATGGCCAGTGCTAATATCAAT
GCAATGATCCCAATGACGATGATTGGA:AAAACCTTCAATGGCAGCAGTGACAGGATCTGT
GCAGCAACAGCATCTGCATCTGGTGCAACAGGACTTATTTCAAATCATCAAGGCCAAAA
AGCGATCGGAATGAGAAGGGGGCTTCAACAGCAGGCGGATCATTTTCCCCATGGTGACT
ATTTCAAGACCTCTGACATCCGGCTCCGCTCCACCTCTACCTCATAATTCCCGAGTCCC
AAAAATGTAGATGGCACCACGGAAGAGATAGTAGGCCACAGTGTTACTGGCTTCCCATTA

Sequence 909

AGGTACAGCAAATTAACCCAATAACAGGAGGAGGAAAAACACCTAATTAATATAAAAATT
TCAAGGATATGTTAAACAAACAAACAATTACAAGAACTCCTGTCAAGTTAAACAGAGAG
AGAGAGAGACAGGGAGAACCCTAACAGGAAAGAGAAAAAGATATACAAGCTATCCCGCA

TABLE 1

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GAAATTA AAAAGAGACTAAGAATATTACAAACAAC TTTATTTT CATTAGATGAAATGGAC
AAATTTATTTTAAAAACACAATTCGCCAAAATTGACAGAAGTGGAAGTAGAAAATCTATTT
CTGTATTTATTAAGATACTGAATCTATAATTA AAAATATCTTCACACAGAAAATTACAG
TTTCAAATG

Sequence 910

AGGTACGATCTGAAGAAATGAAAGGCATTGAACTTTGGTGGGTAAATTGGGTCTTTTCCA
GCAAAGGTATAAATCCTTAAAAGCCAAGATCATATTGTTTGATTTCTCTGGGCTCTCTGC
TGGATACAGTGCCAAGTCCATAACTGTATACCCCATGGACACTCTATGTTAAATGGAGAT
TAATGTGTAAGAGGTGTTTTTTTTTTTGTGTTTGTGTTTTTAATTTGGAAAAGAAGC
TTAAAGACCACAATGGGTGTGGCATTGGCTCGACCCACAGATCTGCTTAGTCTCAGACAG
GCACTTTGAACCAGTCTTTTAAAATTGCGTCACAACAAC

Sequence 911

AGGTACAGATCACTATGGCTTGTCTTTTCTCCTAACTAATGTAAAATTCCCAATAATTCA
TAAC TTGTATGAGGACAACAGTTGTGTGAATCTACCCTGGTCTTCTGATNATTTTTAAT
TTTTNATTTTTTTTTTTTTTGGGGACAGAGTCGTGCTGTTATCGCCCGGGCTGGAGTGCA
GTGGCATGATCTCGGCTCACTGCAACCTCCACCTCCAGGTTCCAGCAACTCTCCTGCCT
CAGCTTCCCGAGTAGCTGGAATTACTGGTGCCCACTACCACACCCGGCTAATTTTTGT
TTTTTAGTAGAGATGGGGTTTCACCATGTTGGCCAGGCTGGTCTTGGA CT

Sequence 912

AGGTACAAATTGTCGTTTTTATTCCTCTTATTGGGATATCATTTTAAAAACTTTATTGGG
TTTTATTGTTGTTGTTTGATCCCTAACCTACAAAGAGCCTTCCTATTCCCCTCGCTGT
TGGAGCAAACCATTAACCTTACTTCCAGCAAGCAAAGTGCTTTGACTTCTTGCTTCAGT
CATCAGCCAGCAAGAGGGAACAAAAC TGTCTTTTGCA TTTTGCCGCTGAGATATGGCAT
TGCCTGCTTATA

Sequence 913

TGGCCAGNTCAAATNACAACCCCCCAACCCCCCCCCCCCCCCCCCAACAAACAGACAAGGA
CACAGNTCACCANACAATGGATGTNCAGGNANTNGATATCAGCAGATATNTTAGNCCTNT
AGATAGGCTAATTTNANTNAGCAAAGGAAAGAGGAGGTANCATTAGNCAGATGGGNTATT
NACCTCTGAATTAGATGGCACTTACCCANCTTCTGGNACAGNCCTGCTGGNGCGTCTAG
ACTAGTGATCCCGGCTGANGATCGATTAACTATCATCCGCGACCTCAGGGGGGGCCGGAC
CCACTTTTGTCTTA

Sequence 914

CGAGGTACGCGGGACACTGGTGGGGGAGAGTCCGACGCGCCTGGCTAGGAGCGCCGACCG
CAGGGCCTCTACGGACCTTACTAGAAAAATGAAACCTGATGAACTCCTATGTTTGACCC
AAGTCTACTCAAAGAAGTGGA CTGGAGTCAGAATACAGCTACATTTTCTCCAGCCATTC
CCCAACACATCCTGGAGAAGGCTTGGTTTTGAGGCTTCATGCGAGAAAGGGGAATGGGGA
ATGGCTGCTTAACGGCATGTCTTTTTTTTTTTGAGACGGAGTCTTGCTCTGT

Sequence 915

CGCCCCGGGCAGGTACGCGGGGACTTGACTTAACTCTGGGGCCCCGGGAGGCCGCCGGTTT
TCTCCCCGCTTGCCGGGGTGGTCTCTTCCCTTTGTCGGACCAAGAAGTAAACACTGTG
TGGAGAGGGAGCTGCGTGTTTGGAGGGAAATGGGAATGTACCT

Sequence 916

CCCCGCGTCCGCTCTCTGTCTGGGGTCCCTCCATCTCGCTGCTGCTGAAGGCCGCGAGGG
CGGCGGCGATGGCGGAGGCGGCGCTGTTGCTGCTGCCTGAGGCGGCGGCGGAGCGGGACG
CTAGGGAAAAGCTGGCTCTCTGGGATCGGAGACCGGACACGACGGCGCCGCTGACCGACA
GGCAGACGGACTCGGTATTGGAGCTGAAGGCGGCGGAGAGAACTTGCCGGTGCCAGCTG
AGCTTCCAATTGAAGACTTGTGCAGTTTAACTACCTCCAGTCACTGCCATTGAAC TGA
CAGTAGTGCTGAATCTACAGAAGACATTCTCTTGAAGGGCTTCACTTCTTAGGAATGG
AAGAAGAAAGAATTGAAACCGCACAGCAGTTTTTCTCATGGTTTGCAAAGCTGCAAACT
CAGATGGATCAAGATGAAGGAATAAATATAGGAGCAGTGTGATGCTATATTGAATGATG
TAAACAGTGCTCTTCAGCATCTGGAGTC

TABLE 1
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Sequence 917

GGCTGTGGCCAAGAAACGCAGGGACCGCTCTCTCCCCGGGCTTTCGAAATCTTCACAGA
CAATAAAACCTATGTCTTTAAGGCCAAGGATGAGAAGAATGCAGAAGAATGGCTCCAGTG
CATCAACGTGGCAGTTGCCCAAGCCAAAGAAAGGAAAGTAGAGAAGTAACCACATATCT
GTAGGGAATTTATAAGTCAGCCATGACAATTATACACCACAGGCATTGTATTATCATTGC
CAATGTCAAGAAAAAGAGCTAAATTTACCAAGCCATGGTTGGNTTTTACTAAATACCAT
GGGAATTTGTTGGTCCTTTAAGAAGAAGGGCCTTAAATGGCAGGGATTTCTTAGTNAAA
TGNCAATACTCTAACAGCTTTAGTATTGACTTTAGAATATATCTGATGCCACAAAAATT
AAATAAAAGGNTTNGAGGAGGTTTGCCNAAATAAGTGNGGGGGCCCGAGGGGAA

Sequence 918

AGTCNCCACGCGTCCGCGGACGCGTGGGCGAGTGCCAGTGACCCTTTACGGGGGTAGCT
TTTACTCCGCACTCTCAGCCCCTGCCTCACCCTCCCTCAAGGCCCGGATTGACCATTTCT
CTGCTCCAGCACTCCATCCCTGGCTGCCACCTGCTTGGGAGAGCACAGACGGCATTGGCA
GTGATCCCTTCTTCCATTGTTCTGCCCTCTCAGAAAAAGGAAGATAGAGCAGGCTGAACAT
GTCCCAGACAGTAACTTTGGTGTAATGCTTCTGTTTTCTGCCACAAGCCCTTTGGTC
TTACCCACTACCTCAGAGCACACTGCTAAGAAAATGAAAGCCACCAATGAGCCAGCCTG
ACACATATGGGACTGCTCGACAGGTCCACTGTCCACGAGCAGAAGCTGGTCACAAAGCT
TGGGAAAT

Sequence 919

GGGAGTCGACCACGCGTCCGCGGACGCGTGGGCGAGTGCCAGTGACCCTTTACGGGGG
TAGCTTTTACTCCGCACTCTCAGCCCCTGCCTCACCCTCCCTCAAGGCCCGGATTGACC
ATTTCTGCTCCAGCACTCCATCCCTGGCTGCCACCTGCTTGGGAGAGCACAGACGGCAT
TGGCAGTGATCCCTTCTTCCATTGTTCTGCCCTCTCAGAAAAGGAAGATAGAGCAGGCTG
AACATGTCCCAGACAGTAACTTTGGTGTAATGCTTCTGTTTTCTGCCACAAGCCCTT
TGGTCTTACCCACTACCTCAGAGCACACTGCTAAGAAAATGAAAGCCACCAATGAGCCCA
GCCTGACACATATGGACTGCTCGACAGGTNCACTGTCCACGAGCAGAAGCTTGTCAAA
AGCTTGGAA

Sequence 920

AGTCGCCCCGCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCG
TGGGGGATGGATGACAGTCCACCAGAAAAAAGTTAGTGGAGCGGGGACAAGCAGGGTTGC
AGAGTGGAAGAAAAATGTTCTGTGAGAAGAACTGTCCAAAGAGTNTGAAGAGAAAAGG
GAACAGGGTGAATTTGANGCCCTACAAGAAAAACAGGAGACCATTCAACAGGAGACGCCC
AGGGAGCAGGTGGCTTTGTGGGCCTGATGTCCAAGAAAGAAAGTNTGGTGGTAAACAGAG
ACTTGTGGATTGCAAGCTACTGTTGTCTTTCTATTGAAA

Sequence 921

TGGGAGTCGCCACGCGTCCGGCCAGGCGTGCCTGGAAATCCGCTTTCGCAGCGCCCCCTC
GTAGCCCGCCTCCGCCCCGAGAAGGCGTTCCCTGGACAGAGAAGCGGGCGCGGGGGCG
GGCGCGTGGGGCCTTGCCGGAGAACCTGACTCTCCGCAGCAGCAGTGGAAGCCAGAGTGA
CGCGTTGTGTTGAACACCAGTTTTCTGGAGCGCTGTGTGTTCTCAACAGCTGAGCAGTCT
GTTTCTCCAATCAGGTTTCAAAGCCACTTCAACTGCACTGGCCCCTGTGGGTCACTGCTG
CACCGCCCTGGCCCATGTGGGTCCCTGAGGAGCGACCTGCCGGGGCCACCTGGCTGGACG
AAAAAGACACACTTTGGGACTTAAGCCGTGAGAAAAAACTTCATCAGTAAGAAACAAGT
CAATAGACAAGTAAAAGACTAGGAGAAAAATATGCATAAAACATAAAAAGTGACTTGGATT
CCTGATCTTGGAGTATTTAAAGAATTCTATAACTTANAAAAGGTTTCAAGTTTTTTNAA
ATGAGCAAAAANGGTTTGGGTAAA

Sequence 922

TCCGAGGCTGGGGGATCCCAAAGGGTGCGCTCCAGCCCCCAACCCAGGCACTGGGACTC
TGGTGGCACCCTGGGTGGCAGGCAAGCCTTGAAATCAAGTGACGAGCCTTGGAAAGGAG
GACCGGGAGAGTTATGGCATTTATGAATGAAGAAGAGAAAGAGAATCACTCGGATGGGAA
AAGTTAACTGGATTGTTCCACCTGCATGGATCACCCGGGTAAGTGCAGTGGGACCGAGG
GGGCGAGGCTGCGGGCTGGGGGATGTGCCGGGTTTCTTGTGTTGCCACGAACCCAGAGA

TABLE 1

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GGGAGAGGAAGAAGATGGAAAGAAAAAGGAAAAAGGGAAGGAAAGTAAGAGGGGAGAGAG
GGGGAAAACTTGAGGATGAAAGAAGAGACAGAAGAAAGAAGAAGACCTTGAGAGAGGGGA
GGAGAAAGGAAAGGAAGCNGGAAGGAGGAATTGGAAAGTGAAGGAAAGGGGGGAAACCAG
GCNGAGAAAGAAAAGAGAAAGGGGGAAGGGAAAGAAGAAAGGGGAAAAGNAAGGGGGGGN
GGTTGAAAATCAACNCGAAAAAAGAGG

Sequence 923

CNCGCGTCCGGCTGTGATGAATGAGGTCTAGGAAATAATTTGCATGTGTCTTGGGGGACA
CAACAGTAACNGAGAGGAAATACATTATTACAGCAACTTGCACGTACTAATACCTGTCA
GTGTTGGCCCCCGTAAGGTATGTAAGGCACCTGNGANGTGCCAGTNAGTNCCTTGGTGN
AAGGCCAACATGTACTAGTTATGTAAGTATTGGTGTCTGCTTTAAAAAAGGAGACCCAGA
CTTCACCTGTCTCTTTAAACATTTGAGAACAGTGTTACTCTGAGCAGTTGGGCCACCTT
CACCTTATCCGACAGCTGACTGTTGGATGTGTCCATTGTGCGCCAGTTTGGCTGTTGCCCG
GACAGGACAGGACCTCCATTGGGCGCAGCAGCAGGTGGCAGGGGGTGTGGCTTGAGGGTG
GGTGGCAAGCGT

Sequence 924

CCCCGCGTCCGCACAGATCCTTGAGCTCCGCTGCAGGATAGTACAGTTTTACCGCAGAGG
GAATCTGGAACAGTGGAATCATGTGTCTGCCCTGTGTATTGCAGTTTGTATTGCCACAAG
CTATATTTATACCAGTGTACCCCTTTTCTGTAGAATATACTAATAAATCTGTGCCAACT
CTACCTTCTCACTTTTACCTCTGACGTCATTCTTTTTTCTGAAAGAGGTAATAATTCTA
GTTTTGATAGACTCTGAGGATTATGTGAACAGGACATTTTTTCAATTTGTGAATTTAATGCT
ATACTGTCAAGGTACTTGCTTGTGTCTGAACTCTAGTGCATTATGATTTTGTAGACCCA
TGTGAAATTTAATAAGATACGTTTTTTTCTTTCTTTGGTGTGGTAGTGCAGCAACAGT
TTGGTCTGCATTTGTTAGAAGTTTAACTCCTAACAA:CCCAAAGACCTATTTA

Sequence 925

GCGTCCGACCCCAAAGGGAGGGACCACATTGCACACACTGTAAGAAATGCATTTCCGAG
GAAGGGGATGGGGGAGCCCGACACCCAGAGCTCCCCGAGTTGGGGGTGCCCGTCTGGAG
CGCCCCCGTCAGCCCCCTGGCGGTGGGAGGTGAGAGCGAGTGGTTAAGTGCCCTGATTACC
ACCACCCGCCCCCCCCCTTTGTCCAGCTGGGACACGGAATGGCCGCGGGCCTCCTCCCCCT
CCCCTCCAGCCTCTCCACCAGCCCCCTCCAGTCAACCCTCATCGCCGTGCCCCCCCAGAGC
TAGAGAGATGGGGCCCCTGCGTGGCCCGAGGGGCAGAGCTGGGCGTCACTTCGCAAGCGT
CCTGCCCTGCCGGGGCGCGGGGGTGGGCTCTGGGGAAGCCGGTGCGCCCCCCACGCCTNC
GCTGCCAGTGCCTTACATTCTGGAGCGACCCCCCTCCCTGGTGCCTCCAGCGAAGGGGG
ACCCGC

Sequence 926

AGACAGCTCAAGCCTTGCCACTTCGGGCTTCTCACTGCAGCTGGGCTTGGACTTCGGAGT
TTTGCCATTGCCAGTGGGACGTCTGAGACTTTCTCCTTCAAGTACTTGGCAGATCACTCT
CTTAGCAGGTAGGTGCCGCAGACCCTGCGGGTTAAGAGGTGGGGTGGGGGGCAGTGCTTG
CCAAGGCCCTAACTGGGAGCGCTGGGTGAGGGGAACAACCCACTTTGGAGGGTTCTCTG
AGAGATAGATACACCCCATATCCTGGGCCAGCTCGTGCACACAGCTGGAGGTCCAGAGA
CCCAGTCCCCTCTGCTCCGTCAAGCAAGTTCCAAGAAGTTGAGCAGAGACCTTCTGGGA
GCCTGGCGGGGTGCAGCGGCCTCCCCTGCGGGGCCTGTCAACCCGCGCGGGCGCGTGCAAA
CGCCTCTGGCGCCTNTNTGCGCGGGAGGGGAGATAAGCGTCTGAGCCAGGGAAAGCCGCC
GGGCTAAAACCCGCCTTTTCCGGGGGCCCC

Sequence 927

CGCGTCCGGTCAATACAAATGTCATTGTTTGGGACCCGTTTCTAAATACATCTGCTGCCT
ACATTCCTGCTCACACATACGCTTGCAGCTTTGAGGCAGGAGAGGGTAGTTGTGCTTCCC
TAGGAAGAGTGTCTTCCAAAGTGTCTTCACTCTTTTTGCCCTGCTTGGTTTCTTCATT
GTTTCTTTGGACACAGATTCTGGAAAACAGAATTATTCTTCATAGGCTTTATCATCATGG
GATTCTTCTTTTATATACTGATTACAAGACTGACACCTATCAAAGTATGATGTGAATCTG
ATTCTGACAGCTGTCACTGGAAGCGTCNGTGAATGTTCTTGGTAGCTGTGTGGTGGCCG
ATTTGGAATCCTCTCGATCTGCATGCTCTGTGTTGGACTAGTGCTGGGGGTCTCATCTC

TABLE 1
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GGTCANGTGACTTTCTTTACTCCACTGGGAAACCTAAAGAATTTTTTCATGATGATTGGG
TGTATTCTGGGTCACTTTCTCTTGCCATAAGCTATNCTCATTCCAGTAGTTT

Sequence 928

CCACGCGTCCGGACGCTGCGTGGAAGCGGCGGAGCCGGAGGGAAGCAAAGGACCGTCTGC
GCTGCTGTCCCCGCCCGCGCTCTGCGCCCTCGTCCCTGGCGGTGCTCCGAAGCTC
AGCCCTCTTGCTGCCCGGAGCTGTCCCGGGCTAGCCGAGAAGAGAGCGGCCGGCAAGT
TTGGGCGCGCGCAGGCGGCGGGCCGCGGGCACTGGGCGCCTCGCTGGGCGGGGGGAGGT
GGCTACCGCTCCCGGCTTGGCGTCCCGCGCGCACTTCGGCGATGGCTTTTTCCGCCGCGG
CGACGGCTGCGCCTCGGTCCCCGCGGCCTCCCGCTTCTTCTCTCGGGACTCCTGCTACCT
NTGTGCCGCGCCTTCAACCTAAGACGTGGACAGTCCTGCCCGAGTACTCTGGCCCCGAGG
GGAAGTTA

Sequence 929

CGACGGCCANGGCGCCTCCGAGTTCGCCGAGGACTCGGAGGGCCAGGAGGGCGCGACC
TGGGTGGATATTTTTGTTGGACGGCGCAACTCTTGGGGTGGCCCGGAGCGGCGGAAACC
GAGCGAGAGAACCAGGAGGCGCTGCGCAGAAGGAGGCCCGGGGCTCCGAGGCGTTGAGG
GGCTCGATCTGCGTTCTGGGGTTGGCAGCCGAGAGGCGCGGTCCCTGAGTGCCAGAGGT
GGTGGTGTGCTTATCTTCTGGAACCCCATGCAGCCAGATCCCAGGCCTAGCGGGGCTGG
GGCCTGCTGCCGATTCTTCCCGCTGCAGTCACAGTGCCCTGAGGGGGCAGGGGACGCGGT
GATGTACGCCTCCACTGAGTGCAAGGCGGAGGTGACGCCCTCCAGCATGGCAACCGCAC
CTTCAGCTACACCCTGNAGGGATCATACCAAGCAGGCCTTTGG

Sequence 930

CGTCCGCTTTNAGACCGGAAGACATTTAAAAGCCAGTTTACGTACANGAAGCATGGTTTT
AGATTAACCTGCCTGTTGGTACAGCTAGAAACATTGCAGCCCTATCGCTTATTTATCTTGC
ATGTTGCTCTGCTTTGCTATGAAAAATATCGTTTTATGATAAAACTTGTGAATTTTGAT
ATGTATTCGGTTATACTCTTAGGGAAAATAATAGAAATTAGAGTGAGAGAAAGTGCTATG
TATATTAGGCTTTCAGATTTTATAGATATAGGCTTAAGGGAGGGTGGAGGTTCTTTTTTT
AAGTTGAATGACTACTTAAATTTGTTGATGTGAATTTAAGTTTTAAAGATTATTATTAAT
TAACTCTTCTCTTTGCTTTGCATTTACCTTCCCAGATGTTCCAGCCTATCATTTTACTT
ATTCTCATTCTTGATTATTTTCATCACTTTCTTACACAACAATATTTAAACTTGNCCTC
CTTTTACACTGGTTTTTGGTAC

Sequence 931

CACGCGTCCGTGGAGTATGTGCCATCTGCCAAAGTGGAGGTGGTGGAGGAGCGCCAGGCC
ATCCCTCTAGACGAGAACGAGGGCATCTATGTGCAGGATGTCAAGACCGGAAAGGTGCGC
GCTGTGATTGGAAGCACCTACATGCTGACCCAGGACGAAGTCCTGTGGGAGAAAGAGCTG
CCTCCCGGGGTGGAGGAGCTGCTGAACAAGGGGCAGGACCCTCTGGCAGACAGGGGTGAG
AAGGACACAGCTAAGAGCCTCCAGCCCTTGGCGCCCCGGAACAAGACCCGTGTGGTCAAG
CTACCCGCGTGCCCCAC

Sequence 932

GGTTCGCCCACGCGTCCGCCCTGCTACCCTGGGAGAAGCCTCAGCTTTCTGGGCAGAGTT
TGTCTCCCTGTCAATTTATACTCTCAGGCTTTATACATTTACACAGTAAGTTCTCCCTCCT
GGAGGGTTAAAAGGAATAATTTCAACAGGGTGAAGGCCTGGCACGGTGGCTCACAAGTGT
AATCCAAGGACTTTGGGAGGCTGAGGTGGGTGGATCACCTGAGGTGAGGAATTTGAGACC
AGCCTGGCCAACCTTGGTGAAACCCTGTCTCTACTAAAAACAAAAATTAGCCAGGTGAGGT
GGCACACACCTATAGCCCCAGCTACTGGGGGAGGCTGAGGCAGGAGAATTGCTTGAACCT
GGGAGGCAGAGGTTACAGTGAGCTGAGATGGCACCCTGCACTCCAGCCTAGGTGACAAA
GCAGCAAGACGCATTCTNAAAACAAAACANCAACAACAACAAAAACGGGAAAACA

Sequence 933

CNCGCGTCCGGTCCACTGTCATCTCCTGGGTTTTCTCTGCTCTTTTATTTGGTGATCCTG
GTTCTTTCCGCCGTTACGTCAATGTGTGCACCTCAGCTGAAAGTTCGTGCTACTTCTGT
GGCCTCTCGTGGCTGGCGGCAGGTGGGGTGATGGTGCTGGCCTCGGCGCTGCTGTGTGTG
ATTGTGTCTGTTCTGACCAACGTGCTCGTGGGTGGAACACCCCAAGGAAGAACCCCATG

TABLE 1

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CATCCCAGCTCAAGGTGGTCAGAGCTAGACCTTCTTATTCTGTTGGGGACGGCGGGCCAC
GTCTTGAGCCTGGGCGCCAGCAGCTTCGTGGAGGAGGAGCACCAGACCTGGTACTTCCTT
GTGAACACCCTGTGTCTAGCTCTGAGCCAAGAAACCTACAGAAACTACTTT

Sequence 934

TCGCCCCGCGTCCGGTTATTTTACCCAGAAGCCGGATAGAGAAAATATTACAGAGAAAAT
CACATATCACATGGGCTCGAAAGATGTAGAGGTTTTTGACAAATGAAGAACAACCATAAC
AGGTAGAGGGAACACCATGAACCAGGGCATGAACTGAAAGTGCATAACATATTCTAGAG
AGAGAAGGGTGTGGGCATGAGTTAGGGCTGGAAAAACAGGTTGGAAACAGATAAGTAAGG
GTCTCAAATGCAATGTCAAAGAGCTTGCAGTTTATTTTCCAGGCAATGAGTAGGCAGCCA
AAAAAAAAAAGTAAGGATGTTTTTTTTTTTTTCCCATGGCATCATATTTAAGAGGATGG
ATTTAAATTGTGTGAGACCAAAGCATAGAGACTAGATAAGAGGGCGATCATTATTTCAA
AAGAAATAATGAAGATCCAATGAAGGAAGTGGGAAATTAATAAGGGGAAGAGAGGTA

Sequence 935

CCGTCCGGTTTTTTGTCTCAGAGTCTTCAGGCTGTACAGGAAATGTGGTGCCGGCATCT
GCTTCTGACGGAGTCTCACTCTGTCGCTCAGGCTGGAGTGCAGTGGCATGATCTCGGCTC
ACTGCAACGTCCGCCTCCTGGGTTCAAGCCATTCTTCTGCCTCAGCCTCCCGAGTAGGTG
GGACTACAGTGGCCATGTGTCTGAGATCTAACCAAGGGAACATGGGTGGAAGTATGTAA
GCCACTTTGACACCACAAAACCTCCCATGGGTTCTCTCTCTTCTCTGTTGTACTTGT
TGGATGGAGAAGATGCTGAGAAATAGTGGGAAGTCTAGGGGATGGAAGAACCAGGATT
CTGAATACTCCATTGGACCTTACGTTTTGGAATCAGGNATGATGCTGGCCTTCATAAAAT
GAGTTATGGAGAAAGTCCCTCTTTTTCTGGTGTTTGGAACANGTTTTCAGAAANGAATTT
GNTACCCAGCTTCCNTCTTTGTACC

Sequence 936

CCGGTGAGCGCCCCGCGCTCAGCCGCCAGATCAACCTTAGCGCTGGGGCGCGGGCTGG
GGTCGCCAGGCGGTGCGTTCTGCCGCGCGGGGCTGAGAGTTAGGGGCCGGGGCCGGATC
CGGGGCCGGGGTCCGCGCGCTAGCCGCCAGCAGCGCAGTCCGGGCCGCCACCCTGCACC
CTCCGCCCTGTTTCTGCACCCGTCTGGGTTCTTGTCGCGCGCGCCGCAAGCCTTCCCGAG
CTCAGGGTGGTGAGCTGCGGAGACCCGTGATAATTCGTTAACTAATTCAACAAACGGGAC
CCTTCTGTGTGCCAGAAACCGCAAGCAGTTGCTAACCCAGTGGGACAANGCGGATTGGAA
GAGCGGGAAGGTCTGGCCCAGAGCAAGTGTGACACTTCCCTCTTGACCATGAAACTCT
NGGGTGTCTGCATTGCTGATGGC

Sequence 937

GTCCGCCGGCATGAGCTGTCCATGAAGGATGAGCTGCTTCAGTTCTACACCAGCGCTGCG
GAGGAGAGTGAGCCGAGTCCGTTTGCTCAACCCCGTTGAAGAGGAATGAGTCGTCTCC
TCAGTCCAGAATTACTTTCAATTTGGATTCTCTTCAAAAGAAGCTGAAAGACCTTGAAGAG
GAGAATGTTGTAATTCGATCCGAGGCCAGCCAGCTGAAGACAGAGACCATCACCTATGAG
GAGAAGGAGCAGCAGCTGGTCAATGACTGCGTGAAGGAGCTGAGGGATGCCAATGTCCAG
ATTGCTAGTATCTCAGAGGAACTGGCCAAGAAGACGGAAGATGCTNTCCGCCAGCAATGA
GGAGATCACACA

Sequence 938

CCCGCGTCCGGAATTCCAGTTGTGGATGAAGGAAATGGTGTTATGACTGCCTCAAGGTTT
TGTAAGCAAGTCATAGGGAACCAAAAGAGGAATCTTGTTTTCTCAGAGGTCATGCCAACT
CCAACTCCCGTTCCCTAACTGTCTCTGAGCCATAGACTAGTAATGGACTCTTCAAGCTC
TACCATTAGGTATCTTTTAAAGAAAGCTGGTTATTACTATTTATTCATTTTTTCTCTTC
TGTGCAAGTGCAAAAGATATGAAACATCGGCTAGGTTTCTGCTGCAAAAATCTGATTCTT
GTGAACACAATTCTTCCACAACAAGAAGGACAAAGTGGTTATTTGCCAGAGAGTGAGCC
AAGAGGAAGTCAAGAAATGGGCTGAATCACTGGAAACCTGATTAGTCATGGAATGTGGG
CTGGCAGCTTTCAAAGOTTTCTTGAAGTCTGAATATAGTGAGGAGGAATATTGACTTCTG
GATCAAGCTGTGNAAGAGTACAAGAAAATC

Sequence 939

CGTCCGGCCGGCGACGGCGGCAAGTGGCGGCCCGGCTGCAGGAGCCCGACGGGGTCTCTG

TABLE 1
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CCATGGGGGAGTGACGCGCCTGCACCCGCTGTTCCGCGGCAGCGGCGAGACATGAGGAGA
CCCCGCGACAGGGGCGAGCGGCGGCGGCTCGTGAGCCCCGGGATGGAGGAGAAATACGGCG
GGGACGTGCTGGCCGGCCCCGGCGGCGGCGGCGGCTTGGGCCGGTGGACGTACCCAGCG
CTCGATTAAACAAAATATATTGTGTTACTATGTTTCACTAAATTTTTGAAGGCTGTGGGAC
TTTTCGAATCATATGATCTCCTAAAAGCTGTTACATTGTTGAGTTTCATTTTTATATTA
AAACTTGGGACTGCATTTTTATGGTTTTGTTTCAAAAGCCATTTTCTTCTGGGAAAAC
ATTACCAACACCAGATAATTGGATCACTAAAAATTCCTGGTAGAAAAGAATTTAAAGAC
AAA

Sequence 940

TCCGAAAGNGTACTGCCATGANCCGAGATAGGAGACACATAAGAGGACAGCAGAAGCCCT
GGCCCTGGGGAGGCTTCTCGGAAGGCCTGGCTTCACAGGCAGGCCACAGAAGGATATCGC
GGGCACCGTGACCCAAAGCAAGATAGTGGCTTCCCTTTTATATCCAATCTAATCCTGAT
TGGATGTCCCTGAGGCCCTGCTGGAACAGCCATAGGAGAGGGCCCATGGCAGTAGGGG
AAAGAAGGAAGAAATTCCTGCAACAAAACCTCAGCTAAACTTTGATTTGTGTATTGTTT
ACATAATAATTTTAAAGGGTACATAATGTGTAAGAGTTTGGATAGAACCCTCTCTTCATA
CTATGGTTTTCGTAAAGGATCTGTTGTTGTTACGGATTTCATTTTTTCCCTCTATTTTTAT
AAAGAGCAGCAGAGTTGTCTTCTCAAACGGCTGCCAAGCTCTGCTTCTTGGGAAGAT

Sequence 941

CCCGTCTGTCGGGTTCGGGCGCGGGCGGGCGCGGCGGCGAGTGGCGCTNTCAGGTGATTGA
CTGGCCAGCTGCCTGAAGGAGCGCCAGGTCTCTTCTGCTGGCAGGTGGCGAAGCCCATTG
GGGCGGCGGTGCAGACCCGCGGCGGCGNGCTGCGGCGGTCTGGCTCGGGAGGCGTTCTCTGG
GGCCAAGGCCATGGCCCCGCGGCTGCAGCTGGAGAAGGCGGCCTGGCGCTGGGCGGAGAC
GGTGCGGCCCCGAGGAGGTGTCNAGGAGCACATCGAGACCGCTTACCGCATCTGGCTGGA
GCCCTGCATTGCGGCGGTTGTGCAGACGAACTGCAAAGGAAATCCGAATTGCTTGTTG
G

Sequence 942

CACCCACCCAGATGCCGCTGGCACCAAGCGCAGCCGCCAGCTGCCGCACTTTCCACTT
GTATTGATCACCTATNANNCCCGCGCANAACGGCTACGNCCGAGCGGACCGCGGCCAGCG
CGCCAGCCCTTGGCACNCCCTNGGAGCAGAAAGGGCTCCGGGAGGAACTCCTTGGGAGC
GCCCTGTCCGGANTGCCCTTTGCTCTCTGCAGTGTGATTTCTTTCTGTTCTGGGAGGAGG
AGGAGAGGANGAAGAGGAGGANGAGGNAGAACGANANNCTGCCCTTCAGAGGTTGGTG
AGGGAGATCGCGCATGGATTTNAAAACCNACCTGAGGTTTCAGAGCGCAGCCATCGGTTG
CNCTGCANGAGGCTAGCGAAGCGTACCTGGTGGNTCTGTTTCGAAAGA

Sequence 943

GTCCGGTTTTGAAACAGAAATGTAGGCATTAGACTTCCTGGGCGGCAGACAAACCAAAGA
GCGGAAATTCATGCAGCCTGCAAAGCCATTGAACAAGCAAAGACTCAAAACATCAATAAA
CTGTTTCTGTATACAGACAGTATGTTTACGATAAATGGTAAGCTTTCACATTTGATTTCT
TCTGTTTTTCCAGTAACTGTGAAGGGAAATTGGTAGGAGGTGTTGTAACAGGGCAGGACC
CAAATGGGAACGGGGGGATGACATTGGTTTGTGAGGTACCGAGCAAAGAGTGAGGATTTT
GGAGTCTCCCTTCTGCTGCTCTGATGTTTTCCACATGCTTATTTCTTTGCCAGGCACTGG
AGATGCAGTCAAGAAAGTGGGAAGTGGCTCTTACTTCTAGTCTGTGTGTATAAGTCACT
TAAGATGGCCGTGTTGACTGCTTCTTTGGGAAATGCCCTGAATAGGAGCATGTAGGGGAT
GTTACCGAGGCTGGGGAAGG

Sequence 944

GCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGGCCCGACCCGAGCCCGACC
CCGAGCCCAAGCCCGAGCCGAGCCCGAGCGAGACCCCGAGCCCGAGCCCGAGCGCGACC
CCCGGTGCGGCGCGGCTACCCCGGCGGAGGCGGNGGGCGCGGGGCGCGCTCTGAGGCCCG
GGGAGTGCGCCGCGCCTCGACCATGGGCGCGCGCCGCTCCAGGAGGAGGGCGCTGAGGA
GCGAGGCCATGTCTCGGTGGCGGCCAAAGTGCGAGCAGCCCGAGCGTTTGGAGAGNACC
TGTTCCAGAGTCACCCCTGAGAACCGCAACGGCCGCGCAGATCACCTGCTGGCTGATGCCTA
CTCTGGCCACGACGGGTCCCCGAGATGCAGCCGGCCCCCAGAACAAAGCGCCGCTGTCT

TABLE 1
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CCTCGTTCTCCAACGGCTGCTACGAGGGCAAGCCTTCTCAGAGGAAGCCCAAGCATTAGG
AAGCCCGCAGGC

Sequence 945

CGCGTCCGGCACGGGGGAGTCTGTGGTGGCCNGTTTACCTGGGCATCTGGCTGAGAGGAA
GAAAGGCCAACCTGATCCTGAGGGGACCCAGACATATCCTTTGCACTGTCCTTAGAGGGG
CGATGAGCTTTGCAGCATTAAAAAATGGTGAAGGGGGGAAATATTTTGAACCAAAGACCA
AATGTTAGGCCGCCGTTATATTTGCAGAAGCTTTGAGAACCATGCGTATAGCCTCTGCA
TTCTCCCCTCTCCTAGGAGCTCTTTTGTCTCTGTCTTACGAGGCGTCATACAGAGGCAG
TGGGGTGGGCACAGATGAGCAGAGTGGATGGTTCGGTGGGTCCCCACGAGGGCGAGTGGT
GGTCATATGTGATGGCACCCTGTTTACACACCCCTCCTGTGTACCCCCCAGGGTCACCCG
AAGTCCCCACACGCTGGCTCTCCACACCCCTCCTGTTCCAGAAAGCATGTCCCG

Sequence 946

TCGACCNCGCGTCCGGCACTCCCTCTGGCCGGCCCAGGGCGCCTTCAGCCCAACCTCCCC
AGCCCCACGGGCGCCACGGAACCCGCTCGATCTCGCCGCCAACTGGTAGACATGGAGACC
CCTGCCTGGCCCCGGGTCCCGCGCCCCGAGACCGCGCTCGCTCGGACGCTCCTGCTCGGC
TGGGTCTTCGCCAGGTGGCCGGCGCTTCAGGCACTACAAATACTGTGGCAGCATATAAT
TTAACTTGAAAATCAACTAATTTCAAGACAATTTTGGAGTGGGAACCCAAACCCGTCAT
CAAGTCTACACTGTTCAATAAGCACTAAGTCAGGGAGATTGGAAAAGCAAATGCTTTTA
CAC

Sequence 947

ACCCCGCGTCCGCTTTTGCATCTGGATCATTTTTCTTTGCCCCACCATGTAAGAAGTGC
CTTTCACCTCCCACCATGAACCTGAGGCCTCCCGAGTCATGTGAAATCGCCCCAGCCA
CCCCACCCAGAGGGCTACGTCTGGCAGAGCTGGGTTTGGTTAGTTCTGAGGGCTGAGC
TGGCCAGCAGCTCCAGACCTCCAGACCTTGCACTCACCTGTGAACCTGACTCTGCAAACT
TCCTCCAAGATGCGCCACCCACACTCCAGTGAACAACACCTACAGGAGCTTGGAGTTCT
ATTCTCAGATACATCAGCTTCCACATTCCTGTGTGTCCCAGCTGGAGAAGCAAGAAGTCC
CAGACCATGTGCTAAGCACACGTTGGGGTGGGGATGAAATCCAATTGGTGGTGTGTGAAT
CCATGCTGGATTGATGAAGCTGAGGCCAGAGGAGGAAGCTTTCTTAATCAACTTCTTAA
CATG

Sequence 948

TAAAAGCCATGGTNATTTGTGCACTGTGCAGTTTCTTATTAGCAAAGGTGCCAATGTAA
CAGGGCTACAGCCAATAATGATCATACAGTAGTGTGCTGGCATGTGCAGGAGGCCACCT
GGCAGTTGTTGAGCTTCTTTGGCTCATGGGGCTGACCCTACTCATCGACTCAAGGATGG
TTCAACAATGCTCATTGAAGCTGCAAAGGGTGGCCATACTAATGTAGTTTCTTATCTGTT
GGATTATCCAAATAATGTTCTGTGCTAGTTCACACAGATGTGTCTCAGCTCCCTCCACC
TTCTCAAGATCAGTCTCAGGTGCCACGTGTGCCAACGCATACACTTGCCATGGTTGTACC
TNCCCAGGAACCTGACAGAACTTCACAGGAGAACTCTCCTGCCCTTTTAGGAGTGCAAAA
A

Sequence 949

CCACGCGTNCGGTCCGGCCTGTGCGGCGCTGCGGCGGAGCGGGCCATGGCAGTGGGGAGGG
GGCGAGTGTAGTGCTGCGCGGGGACGGCGGGAGGTGATCGAGAGAGGCAGGGATGGGGGC
GCCGGAGTGGAGCGGTTGCGGCGGNCTGGGCTGCTGACTGCGCACTTGGAATAGTAGCAG
GCGGCGGCGGCGGAACGCCAGGCAGTGTATGTTTAACTGAAAAAGTCTTCCATGAAAA
CCGTCACTTTTAAAAAATAAGGTAATGCCATTCTGTTTTTCTAAAAAAGACCTGAA
AATGGGGGGGCGGAACACATTCTTAGGGGCCCCCGGTGGNTTATTGAAATGTGCCTTTC
AAGTTTTTCATTAAATGCNCTCCTGGCTTATTGGGCAGGACCATTCCCTTTGAACCAATCC
TGGGGGCGGGGCTGGGATTTCAACAAGAATTAGGCAATTCTTGAATGGGCCTTCCAATA
ACCCTGNTGGGGAATTTTCCNTTTTNGCCCCAACCTTGGGGGAATTTNATTATTTNC
AAGNTTTGGGGAAGGGTTACCCTTCNNGGGGGAANGCTTAACCAATTTTTC

Sequence 950

TTNNGGAGTCGCCACGCGTCCGGCCGGCGACGGCGGCAAGTGGCGGCCCGGCCTGCAGGA

TABLE 1
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GCCCGACGGGGTCTCTGCCATGGGGGAGTGACGCGCCTGCACCCGCTGTTCCGCGGCAGC
GGCGAGACATGAGGAGACCCCGCGACAGGGGCGAGCGGCGGCGGCTCGTGAGCCCCGGGAT
GGAGGAGAAATACGGCGGGGACGTGCTGGCCGGCCCCGGCGGCGGCGGCGGCTTGGGCC
GGTGGACGTACCCAGCGCTCGATTAACAAAATATATTGTGTTACTATGTTTCACTAAATT
TTTGAAGGCTGTGGGACTTTTCGAATCATATGATCTCCTAAAAGCTGTTACATTGTTCA
GTTCATTTTTATATTAATAAATTGGGACTGCATTTTTTATGGTTTTTGTTCAAAAGCCAT
TTTCTTCTGGGAAAAC

Sequence 951

NNTCCGGAGTCGACCNCGCGTCCGCGGCTGCTGCCTGCTCTGGAGGCAGGCTGGGCGGTG
GCGGCCGAGACTGGCGGGGGTGGACGCCCCGGGCGGCTGCGCCCCGTTCTTGACAGCTGT
GAATTCCTTTGGACAATTGATGATATTTATCATTGTGCCAGTTTCTACAAATAAAAGAT
GGGTGGATTATTTCTCGATGGAGGACAAAACCTTCAACTGTAGAAGTTCTAGAAAGTAT
AGATAAGGAAATTCAAGCATTGGAAGAATTTAGGGAAAAAATCAGAGATTACAAAATT
ATGGGTTGGAAGATTAATTCTGTATTCTCAGTTCTCTATCTGTTTACATGCTTAATTGT
ATATTTGTGGTATCTTCCTGATGAATTTACAGCAAGACTTGCCATGACACTCCCATTTTT
TGCTTTTCCATTGATCATCTGGAGCATAAGAACAGTAATTATTTCTTCTTTCCAAGAG
AACAGAAAGAAATAATGAAGCATTGGATGGA

Sequence 952

TCNCCCCGCGCCGGTTTTGATACAGAATGAAAGTGCGTAGTATTTTCATTTTGTTATTT
TTGCCATTATACATATAGCAAGCCCTCAATAAATAAATATTGAATGAATGAATGAGTGAGT
GAAGAATTTGTTTATAACAGTCTGTCTCTTGATAACACTGGAATGTCTTTGGTTCTTCC
ACTTCATCCTTTATGTTTTAACTTACACACACCATTCTTACACGTCACTAAAGGAAAAAT
ACCAGTATATATTGGCTAAAATTTTTTTTTTTGTTGTTCAAAGTCAAATGCCTA
ATTGGGCTAGGGGTCCTCTTAAAGGAGGTTGATGTTTGCAAATGGGTTATTTTTTAAAA
GCAGTAGATAATTGCTTATTTCAAGGCAAGTAAATGAATTTAGACTAAGCTGTTTCATAGG
ATTCATCATTTTTTCCCCTCTCCCAAAGTAATTTGTAAGCCGTAAAC

Sequence 953

TCGCCCCGCGTCCGTGATTTCTCAGTGTTCTCCTTAGATACCAAATACAAAGGACGAGGG
ATCAAGCTCAGCGAAAGTATCAGGCATTTAAGGTATCAGGCAGCAATGCGGGGAAAGGTG
AATTTTCTTCAATCAGCATAGGATGGTTAGGGAAGAGCATTATCACTTTGGTTCTTATC
CTTCAAGCCAGGGGAAAAGCAACAGTGAGGACATCAGAGACAAAAGCATTATAGAACTA
ACAAACACAAACGTTTGACAAGTGAGAAAGCTTTATTAAAGCACACATACATGTCAGGGG
GGTGGGAAACAAAAGAGCAAGTTACAGCCCGGATCCCAAGTTATGCCTTCCATTACAAT
TGCAATCCACACCAAATCAATCTTTGAAAACATTCCTCCATTGCGTTTCATACATACAGTA
GAAACCACTGTGGCTGCCCTTAATCCAGTGTGCTTATAGGAAATCAGTTAGCAGCTGACT
CTGTTGAAAG

Sequence 954

CGTCCGGACCCTTATTAAGAATATCCCAGGAAGATGGTGATGAACAGCCTCAGTTTACTT
TTCCACCAGATGAATTCAGTACAAAAAAATTACAACAAAAATATTACAGCAGATTGAGG
AACCATTGGCACTGGTGTGAACAATTAACCAGCAAATGTCCTTTTCTAATACCATTGAA
ACTAGACAGCTTTATTTACATGTACAGCATTGGCGCCTCAAGAGCAATAGTATGGTTA
CAGAACCAGCGTGAAGCCACTGTGGAGCGAACCAGAAACCAAGCAGTGTTAGGCGAGAT
GACCCTGGAGAGTTTCGAGTTGGTCGTCTCAAGCATGAAAGAGTAAAGTTCCACGTGGC
GAGTCACTGATGGAATGGGCTGAGAATGTCATGCAAATACATGCAGATCGGAAATCAGTT
CTTGAGGTTGAATTTTAGGAGAAGAAGGAAGTGGCTTGGGACCCACATTAGAGTTTAT
GCTCTGGTG

Sequence 955

ACCACGCGTNCGGGCAGAAATACGGCGGCATGTTCTGCAACGTGGAGGGCGCCTTCGAGA
GCAAGGACGCTGGATTTGATGCCCTCAGCGTGGGGCAGCGGGGCGCGAAGACTCCTCGG
AGCGGCCAGGGCAGCGACCGAGGATCGGGGAGTCGGCCCCGGGATCGAGGGGGACACCCCG
CGCAGGGGGCCAAGGCCGNAAGAGAGCAGGGAGCCCCGCGCCCGCCTCCCCGCCCCCGCC

TABLE 1
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GGGGTAGAGATCCGGAGCGCCACCGGCAAAGAGGTGTTGCAGAACCTCGGCCCAAGGAC
AAGAGTGACCGTCTNCTTATCAAGGGAGGCAGAATCGTCAATGATGATCAGTCCTTTTAT
GCTGATATTTACATGGAAGATGGCTTAATAAAACAAATTGGAGACAATCTGATTGTCCT
GGAGGAGTGAAGACCATTGAAGCC

Sequence 956

CCCGCGTCCGCTACTGTACTTTGCAGTTTGATGTTTATTAACATTCTTTGGGCACCTAGC
TACAATATAACTCAATTTTCTGTGAAAACTATTAATCATCCTATTTTTCTTGTCCTT
AATATGAGATAAATTTATACCACTGTTTCTCAAACCATCTGTTGTGAGGGACAGTTTG
CTTTTAATTTCCAATTGTCAGAGACCAATACTTTTGTAATATAATTAAAAACAAACA
TAAAAATAAACTTATTAGAAAAATGAAATAAAAGAGAAATGAAATAAGAATAATTTTATT
ATTAGATTTAACAGATCAAATATTATTTCAATACTCAGATCAAATGTGCAATAAGACAGG
GTTGCAAAAAATGCACACTTTTTTATTAAATCATTTATATAAGTAATTTATATAAAAA
TAATATTACAGTTGCAACTTTCTGGTGNTTCTCAACTATGACCAACAGGAGGGTACAAG
TAAAGGAGCAATCCCAA

Sequence 957

GTCGACCACGCGTCCGCAGCAAAAGTGCCTGGCTGAAGGACACTGTTGACCCAAAAGTGG
TGACCCTCAACCACCGCATTGCTGCCCTCACAGGCCTTGATGTCCGGCCTCCCTATGCAG
AGTATCTGCAGGTGGTGAAGTATGGCATCGGAGGACACTATGAGCCTCACTTTGACCATG
CTACGTCACCAAGCAGCCCCCTCTACAGAATGAAGTCAGGAAACCGAGTTGCAACATTTA
TGATCTATCTGAGCTCGGTGGAAGCTGGAGGAGCCACAGCCTTCATCTATGCCAACCTCA
GCGTGCTGTGGTTAGGAATGCAGCACTGTTTTGGTGGAACCTGCACAGGAGTGGTGAAG
GGGACAGTGACACACTTCATGCTGGCTGTCCTGTCCTGGTGGGAGATAAGTTGGGTGGCC
ACAAGTGGATACATGAGTATGGACAGGAATCCGCAGACCCTGCAGCTNCAGC

Sequence 958

GTCGACCACGCGTCCGCGCCAACTCCGGAGGCGCGGTGCTCGGCCCGGGAGCGCGAGCGG
GAGGAGCAGAGACCCGCAGCCGGGAGCCCGAGCGCGGGCGATGCAGGCTCCGCGAGCGGG
ACCTGCGGCTCCTCTAAGCTACGACCGTCTGCTCCGCGGCAGCAGCGCGGGCCCCAGCAG
CCTCGGCAGCCACAGCCGCTGCAGCCGGGAGCCCTCCGCTGCTGTCGCTCCTCTGATG
CGCTTGCCCTCTCCCGGCCCGGGACTCCGGGAGAATGTGGTCCCTAGGCATCGCGGCAA
CTTTTTCGGATTGTTCTTGCTTCCAGGCTTTGCGCTGCAAATCCAGTGCTACCAAGTGTG
AAGAATTCAGCTGAACAACGACTGCTCCTCCCCGAGTTCATTGTGAATTGCACGGTGA
ACGTTCAAGAC

Sequence 959

CCACGCGTCCGAGGGTGGGGAAAGGAGGAGAGGAAGAGCACTCCCTTCCCTGGCCCCCTCA
TCCAGCCTCCGGTGCTGTAAAACGCAGGCGCTGGGCCGCGGGCGGAGCTGAGGACAGGGC
TTGGCTGGTCCCAGGATGAGCGACGAGTTTGGTTTTAGCTGGGGATTGTGCTGGCATCCT
GCGAAGCTCCTCCAGCCGGTCTCTGTGCTCGGTTGTCTTGGGGTGGGGCCCATCCGC
CGAGGTGGGGACCGATAGGAGAAGCCGGTGGGTTGTACCCTTACACTTGTGGAGTCTCCT
CTTGCCCTCTACCTACTCCGCCTTTGTCCTTAAGGTTTTTGCAAGGCCAGTGCCAAACACAC
ACTAACTGTCCTGGCCTCTCCGTGACACAAGTCTCTTCCAGCCTTCCTC

Sequence 960

CCACGCGTCCGCGGACGCGTGGGGCCGGGACAAGTGGTCTTATCACGGAGGCTGGGGCCA
NGGCAGCCCTTCGGTTCGGGTGGGCCCATGGACCCAGTCCAACGCCGAGGGAATAGGAC
CATCCAAAAGCGGAACCTTCGCCTCAGAAAAAGGGTGCGGGACCCCTCCTACCGTGCGG
TCACGCGTGGACCCTGCCAGCAGCCAGGCCATGGAGCTCTCTGATGTCACCCCTCATTGAG
GGTGTGGGTAATGAGGTGATGGTGGTGGCAGGTGTNGGTTGGTNGCTGATTCTAGCCTTG
GTCTTAGCTTGGCTCTCTACCTACTTAGCAGACAGCGGTAGCAACCAGCTCCTGGGCGCT
NTTGTGTCAAGCAGGCGACACATCCGTCTCTNCACCTGGGGCATGTGGACCACCTGNTGGG
CAGGCCAAGGCNNCCCCGAAGCCAAGTGA

Sequence 961

NCCCCGCGTCCGGGAGGCTCCATGTTGTCCCTCAGCGAGTGGCAGCAGCTGCCTCAAGA

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GGAGCAGATGATGCCATGGAGAGCAGCAAGCCTGGTCCAGTGCAGGTTGTTTTGGTTTCAG
AAAGATCAACATTCTTTGAGCTAGATGAGAAAAGCCTTGGCCAGCATCCTCTTGAGGAC
CACATCCGAGATCTTGATGTGGTGGTGGTTTCAGTGGCTGGTGCCTTCCGAAAGGGCAAG
TCCTTCATTCTGGATTTTATGCTACGATACTTATATTCTCAGAAGGAAAGTGGCCATTCA
AATTGGTTGGGTGACCCAGAAGAACCGTTAACAGGATTTTCTGGAGAGGGGGATCTGAT
CCAGAAACCACTGGGATTCAAATCTGGAGTGAAGTTTCACTGTGGAGAAGCCAGGTGGG
AAGAAGGTTTGCAGTTGTTTCTGATGGATACCCAGGGGGCAT

Sequence 962

GCCCCGCGTCCGCTTCTCCGAATATAGCAACGTCCAGCAGTGTCCACACTGTGGGAACCT
GGACTACCACTTCGTGAAGCCATTTTCTCCTTCAAAGTTCTCGAAGCTTATTGATGAAA
GCTTTGCTTTAGTAATAGCTATTTTATTGATATTATTACTTTATTACATATCTTTTATAG
GGAAACATTCTGTGACATTAATTTCTTTCTAATTTAAAGGAGAGTTACTTTGTTGTATG
TGTGCCACTAAAATAGGGGCTGCCCTTGCCTGTCTTGATTCCCGAGTGTTAATCTGTGG
TTTTGACCAGAGCCCAGATGGGTAATCCTGTGCATTTGGGTTGGGGGTTCACTCTTACCA
AGAATCTTTGATGCAGCTTTAAGATGGTGGGGAGATGGGGGTTGAATTTAGGGAAAGAAT
NTTGTGGGTTATAAACTAAGAGCTTGATAGGAGTTGGAAGGAAACTCTTACTAAAATGT
TAACTTTCTAAAAACCTTCTTTANATCTTNCTTGGGCCTTTGAAAA

Sequence 963

GTGTTTTGGGGATGCCTTTCCTTACCAGATTCTTCTAAAGCCCAGCTGCACCCACCCTTA
AGTGGGAGATAAGGCTTCTGCCCGCGGGCTCTGCGTTCGTCCACCCGGCCCCACGTTTGC
TGTGGACTAAACAGGAGCCACTGGACTAGAGTACACTTGACTCTCGGCTCTGCGGACCAA
AAATCCAGGACTAAGGAATAGCAAGGTTAGGCTGAAACAGTCCACACAGGGCTTGCGGT
AAACGTCTTTTCAGGAGCCACTCGCCAGTGCAGTAAGTCGTGTAAGTTGACTCGAG
CGCTCCAGGGAGACGCCCGACCCTACTCTGCGCCGCCCGGGGACCAGCTCTGCTTCCT
CCAGGTCCACTGAGGCAGGCACGCCAGCTCTGGGACAGGTCAGTAAACAAGCCACGAAC
CGCGCCAGGGATCAGAGAACCCANAGTCCCCGCCAGCTGCCGGCACAAGCCAATCGCAGC
GCANCCAGGCGGC

Sequence 964

GTCTAAGGGATCCAGGTCCTGTGTCTCAGGGACCTCTGATGGGATTGAATCCAAGAGGAA
TGCAGGGGCTCCAGGCCNCGGGAGAACCAGGGTCCTGCTCCCAAGGGATGATTATGG
GCCACCCGCTCAAGAGATGAGAGGACCTCACCTCCAGGTGGACTACTGGGACACGGCC
CTCAGGAAATGAGAGGTCCTCAGGAGATCCGAGGCATGCAGGGGCTCCACCCCAAGGAT
CAATGCTGGGACCTCCCCAGGAATTGCGAGGGCCTCCAGGCTCACAAAGTCAGCAGGGGC
CGCCCCAGGGCTCTTAGGACCTCCACCCAGGGTGGCATGCAAGGACCCCCCGGACCTC
AGGGACAGCAGAACCCAGCAAGAGGGCCACATCCATCTCAAGGGCCAATACCATTCAGC
AACAGAAAACGCTCTGCTAGGTGATGGGCCCCGGGCCCTTCAACCAGGAAGGACAGA
GCACAGGCCCCCCACC

Sequence 965

TGCGCATGCGCGGAGCGCGGCGCGCGCGGCGGTTGGGCCGTTGGCTGTTTCGGCCCTGGGA
TCCGCCGCCACTCCGCGATCAGACCGCTCTGTGCCGCGAGCCGCCGTGAGCACTCGGATT
CAAGCCGGCGCCAACGAGTCCGGGGGCATCGCCGCGAGCGGCCAAGCTCATGGCCGGCTG
AGCGGGACGCCGCTNCGCCTCAGCCACCGCGCCGCCGCGCCGCTTCTTCTCCTCAGCCG
GCGGCGGCCGGGCGCCAGCAACCATGGCTGAAGACTACTGGGACGGGCGCCTGCGGCGAA
CAGGAGGAGAAAAGGGAGGTGCGCGGCGCTCATTCCGGGCGCGCCCGCCAGGCGCGCGCGC
GCCGGCCCCGCGGCTCTGAGGTTGCTCGCGCGCCCC

Sequence 966

TGGAAAATNTTTTGGAAAAAATTACCCTTGGGACCTTGNTTTTNAANCCCNAGGTTCCCN
GTTNNGGCAAATAAANAATGNNGGACCCGGGATTTNNGGNTTNNAAACGGGGGTTTTT
AATTTCCCNNNNCNNGGNCCTTTTTTTTNNCCNCCCCCNCAAGGGGNTTTGGGAAAN
NAAANCCCCCCCCCTTTTTTTTTNNGGGGNGAAANTTCCCCGGGTNNNNGCCNTTTTTTT
TTTTTAAA

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Sequence 967

GTCCGCGAGGCTCCGCACCAGCCGCGCTTCTGTCCGCCTGCAGGGCATTCCAGAAAGATG
AGGATATTTGCTGTCTTTATATTCATGACCTACTGGCATTGCTGAACGCATTTACTGTC
ACGGTTCCTCAAGGACCTATATGTGGTAGAGTATGGTAGCAATATGACAATTGAATGCAAA
TCCCAGTAGAAAAACAATTAGACCTGGCTGCACTAATTGTCTATTGGGAAATGGAGGAT
AAGAACATTATTCAATTTGTGCATGGAGAGGAAGACCTGAAGGTTGAGCATAGTAGCTAC
AGACAGAGGGCCCGGCTGTTGAAGGACCAGCTCTCCCTGGGAAATGCTGCACTTCAGATC
ACAGATGTGAAATTGCAGGATGCAGGGGGTGTACCGCTGCATGATCAGCTATGGGTGGTG
CCGACTACAAGCGAATTACTGTGAAAGTCAATGCCCCATACAACAAAATCAACCAAAGA

Sequence 968

CGTCCGGAACTCAGCAACGGTTTCTTCATCCAGGACCCGATTGCTCTGGTGGAGAGGGG
GGGCTGCTCCTTCTCTCCAAGACTCGGGTGGTCCAGGAGCACGGCGGGCGGGCGGTGAT
CATCTCTGACAACGCAGTTGACAATGACAGCTTCTACGTGGAGATGATCCAGGACAGTAC
CCAGCGCACAGCTGACATCCCCGCCCTCTTCTGCTCGGCCGAGACGGCTACATGATCCG
CCGCTCTCTGGAACAGCATGGGCTGCCATGGGCCATCATTTCCATCCCAGTCAATGTCAC
CAGCATCCCCACCTTTGAGCTGCTGCAACCGCCCTGGACCTTCTGGTAGAAGAGTTTGTC
CCACATTCCAGCCATAAGTGACTCTGAGCTGGGAAGGGGAAACCCAGGAATTTGCTACT
TGGAATTTGGAGATAGCATCTGGGGACAAGTGGAGCCAGGTAGAGGAAAAGGGTTTGGGG
CCGTTGCTAGGCTGAAAGGGAAGCCACACCACTGGCCTTCTTCCCCAGGG

Sequence 969

GATTGGAGGAGTCACATCCCCTCTTCAGCCGACGACCCCTCCCTCCCATCCTCTAGCTC
TTCCCGCGGTGGTGCCTCCCTCCGACCCTGCTCTCCCTCCTGGGCCCCGCGCAAAGCC
CCCTCTGTTCCAGCTCCCGGGCCTCGGCTGCCTCCCCGCCCTCCCATCCCTTCTCTTCC
CAGGGCCTGGAGCGCTCCCTTACATTCTGAGATGCCCTTCTCGGGGCTGTCCCCCTTT
GCCTCCCCAGCATCCCATTTCTAGGCCTTTTCAAGACCCTTCCAGAGCGGCCCTTTCC
AGCTCCCTTTCTCGTTTCCATTTCCAACCTTGCCTCTTTTGCCTCTTTGTTCACTTTGCT
TCCAAGCTCCCCCTCCCTCTTCCCTTCTGCTTACCCTGCTTTGATCTACGCAGCCCCAAA
CTCAAGCTCCCCGCTTTCAAGGTGGTGCAGGTTGTTGGGGGGTGCGGAAGGGCCTGCCA
AGTCCATTTTTTCGAGGGG

Sequence 970

GTCCGAGATCGCGAGCCGCGCCCTTTTTTTTTTTTTTATAAGATTATTAGTATAAAAN
GGGGAGACGAGGTTAGGGCCCTGGGAAAGGTGGGAGATCAGCCAGAGACAGGTTTCCAG
AACAGAATGTCTGGCCTTTGTGGTGAGGAGGGACTGTGGTATGAGCCGAGAAGCGGGCC
AGGGGTAAACCCTCCTGTGCGTCCTTCTTCAGCCTGGTCCTGAGGGTGACCCTTTGATC
CTGGGTTCTCCAGGTAGGGCTGTGAGCTGTGAGTTGGATCCTTTGGTGAATGGTCTCT
CTCATCTGGCCTGTCACTCAATGTGGAATAGAGTGAGTGAGTTCTATGGGTTCTAAGTCC
TGCTCTGGAACCATAAGTAAGTTATCCTCTCTGGGCTTCAGTTTTTCATGGAAAGTTGCG
TTAAGAATCTAGTTTAAGGCCAGGCATGGTGGCTCACCGCCTTGTAATCCAGCACTTTG
GGGAGGCCAAGGAAGGTGGATCATGANGTCAGGAGATCGAGACCATCCTNGCTAACATGA
TNAACCCGTGTCTTTACTTAAAAAATAC

Sequence 971

CCTGCCAGTGGTGAGCACCTTCGGCCTCCAGGTGCCTTTCTTCTTCTCGCGGCCATNTG
CTTGGTGAGCCTGGTGTTCACAGGCTGCTGTGTGCCGAAACCAAAGGGACGTCCNTGGA
GCAAATCCGAGTCCTTTTTCCGCACGGGGAGAAGGTCTTCTTGCGCTAGGTCAAGGTCC
CCGCCTGGAGGGGGCCAAACCCCA

Sequence 972

GCGTCCGCGACGCGTGCGGCGGACGCGTGGGTGAGCCTCCACCTGGAAGAGAGCTANGGG
CCGGGCAGGCGGGGAGCTGCCACCCCGCCCGGCCGACGCCCCGCATGCCCCGAAGTCC
CTGGCGCCACCCGGCCGCGGCCCTGCGTGTGACCCGCGGGTCGATACCTGGCAGCCCCA
GTGCTGGGGCGCCGCGGCCCTGCTCGCCAGGAGGAGAGCGAGGGCCCCACACTGAGTCT
CTTGAAGCCTCACGTTTCCCTGGGGGGGTGCTGCATCGTCGGGTGTCCCTCACCCACCT

TABLE 1
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GGGGAACCTCTGTCTTCAGGTCACCCCTTTTCAGGGGCCTGG

Sequence 973

CGTCCGGGACCCTGCTCATGGAGAACATCAGCAGCTGGCTGCTCCTTCGCTGACGCCCTG
GGCTACGTGAACCTGCCGCTCACCTTTTTCTGCCGGGCAGAGCTGGATAGTGAGCCCGAG
CGGGTGGCGTCCGTCCTGGAAGCTGAAGGAGGACTGNAACAACACTGAGAACAAAGAA
CGGAAGTCCTTNCAGAAGGAGCTTGTGATGGCCCTACTGAAGATGGACTGCCAGGGCCTG
GTGGTCAGACTCATCCAGGACTTTGTGCTCCTGACCACGGCTGTAGAGGTGGCCCAGCGC
TGGCGGGAGCTGGCTGAGAAGCTGGCCAAGGTCTNCAAGCAGCAGATGGACGCCTACNAG
TCTCCCCACCGGTGACAGGAACGGGGTTGTGGACAGCGAGGCCATGTGGAAGCCTGCGTA
TGACTTCTTAC

Sequence 974

TCACCACGCTCCGCGAAGCGTGCACCGCTGCGCCCCCGCCGGTGAGCGCGGGGAGCGCC
GCAAGCCCAACGCCGGGGGCGAGCCCCGCTCCGGTGCGCCGCCGNCGGAGGCCTCGCCGG
TGCAGAAAAAGGAGAAGAAGGACAAGGAGCGCGGAAAAACGAGAAGGAGAAGAGTGCCCTA
GCCCGGGAGCGCAGCCTCAAGAAGCGCCAGTCGCTGCCCGCCTCCCCACGTGCCCGCCTC
TCTGCCAGCACCGCCTCTGAGCTCAGCCCCAAATCCAAGGCCAGGCCATCCTCTCCCTCC
ACATCCTGGCACAGGCCTGCCTCCCCCTGCCCCAGCCAGGGCCAGGCCACACTGTGTCT
CCAAAGCCACCGTNCCCCCGAGGCACCACTGCATCCCCCAAGGGGCCGGGTTGGAGGAA
GGAGGAGGCAAAGGAGAGCCCCAGCGCCGCANGGCCCGAGGACAA

Sequence 975

TCCGCAGAAACGGACTTTCTCATCATGCTTTCCTATGGTGGGTATGAGGGGCCAGCTGAT
ACCAACCAACTGGCCTGTATCTATCTATCTGGATTGACTTGAATTTTTAAATGTGTAT
CGTTTTAAAAAATAATGTTTGCAAATTTGCACATAGGATCTTGCACTGTTCAATTTCA
GTGGGGTGAGTCTTCACTAAAAACACAAGCAGAGCTCCTGGGAAAAGAGACTGGAAGT
GGTTCAGGATAAAGAGATCCATGGTGGGCAGGGCTCTTAGGTACAGAGCTCTAGAAGCA
GCTGGACTTGAACCCACAATGGCTTGTGTAAATTCGTAAATTTATGTTTCTAGGAAAA
GCTGCATTG

Sequence 976

GCGTCCGGAAGAACTGTGGAAGTGCAGTGGTGGCAGACAATTTGTTACAAATATTTAAAGG
AAAGATTTTGCCAATATGACCAGCTTGGTGGACCTGACTCTATCCAGGAATACAATAAGT
TTTATTACACCTCATGCTTTCGCTGACCTACGAAATTTGAGGGCTTTGCATTTGAATAGC
AACAGATTGACTAAAATTACAAATGATATGTTCAAGTGGTCTTTCCAATCTTCATCTTG
ATACTGAACAACAATCAGCTGACTTTAATTTCTCTACAGCGTTTGATGATGTCTTTGCC
CTTGAGGAGCTGGATCTGTCTATAATAATCTAGAAACCATTCTTGGGATGCTGTTGAG
AAGATGGTTAGCTTGACATACCTTAGTTTGGATCACAATATGATTGATAACATTCCTAAG
GGGACCTTCTCCATTTGCACAAGATGACTCGGTTAGATGTGACATCAAATAAATTGCAG
AAGCTACCACCTGACCCTCTCTTTCAGCGAGCTCAGGTACTAGCAACCTCAGGAATCATA
AGCCCATCTACTTTTGCATTAAGTTTT

Sequence 977

NCTCCAACAATTATGGCTCATCCTTCCTTTTACTCTGTCTCACCTCCTTTAGGTGAGTAC
TTCTTAAATAAGTGCTAAACATACATANACGGAAGTNGAAAGCTTTGGTTAGCCTTGCC
TTAGGTAATCAGCCTAGTTTACACTGTTTCCAGGGAGTAGTTGAATTACTATAAACCATT
AGCCACTTGTCTCTGCACCATTTATCACACCAGGACAGGGTCTCTCAACCTGGGCGCTAC
TGTCATTTGGGGCCAGGTGATTCTTCTTGCAGGGGCTGTCTGTACCTTGATAGGACAGC
AGCCCTGTCTAGAAAGGTATGTTTAGCAGCATTCTTGGCCTCTAGCTACCCGATGCCAGA
GCATGCTCCCCCGCAGTCATGACAATCAAAAAATGTCTCCAGACATTGTCAAATGCCTC
CTGGGGGGCAGTATTTCTCAAGCACTTTTAAAGCAAAGGTAAGTATTCATACAAGAAATTT
AGGGGGAAAAAACATTGGTTAAATAAAAGCTATGTGTTCTATTCAACAATATTTTT

Sequence 978

CCCCGCGTCCGGGTCCCGCGACTCCCGGACTGGAGAAAAACGGCTCTTGCGATGGGGCGA
AGTCCGAGCTGCGGCGGGCGTTGGTCCGTGCAGGGAAGTGGGAATCGTTAGGTTCTGTTCT

TABLE 1

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GGACCCGCGCCCATGGCCCAGGCGTCTCGCTCAGGTAGCCTGCCTCCACTCGTTATCG
TGCCCCCGCTGAGGGCGCAACCCGGGGGCACTGGGGAGGAGCAGTGGGAGAGAAGTCGAA
CGGNCGNCTTCCGCTGGGCAGAGCTCAGCAGTACTTGGCAGCATGGGACCCAGCTTCCT
TCCTGCTCCTGATCCAAAAGGACTTACCTNCTCTGTTGCATGAGGCAGAAGCTTTGTATA
GCCTGGCCTCAGAGGAAAGCTTAGCTCTGGAAGTGGAGCAGCAGCTGGGCCTGGAGATCC
AGAANCTGACTGCACAGATCCAGC

Sequence 979

AGGCTGNTACGAAGCGAGCTTGGGAGGAGCAGCTGGCCTGCGGGGAGAGGAGCATCCCG
TCTACCANGTCCCAAGCGGTGTGGCCCGCGGGTCATGGNCAAAGGAGAAGGCNCCGANAG
CGGCTCCNCGGCGGGGCTGNTACCCACCAGCATCCTCCAAAGCACTGAACGCCCGGCCCA
GGTGAAGAAAGAACCGAAAAAGAAACAACAGTTGTCTGTTTGCAACAAGCTTTGCTA
TGCACTTGGGGGAGCCCCCTACCAGGTGACGGGCTGTGCCCTGGGTTTCTTCCTTCANAT
CTACCTATTGGATGTGGCTCAGGTGGGCCCTTTCTCTGCCTTCATCATCCTGNTTGTGGG
CCGANCTGGGATGCCATCACAGACCCCCCTGGTGGGCCTCTGCATCAGCAAATNCCC

Sequence 980

ACCCCGCGTCCGGAAGAAGAGTGGCCNGTTCAGGGGTAGCTCCAAAAGAGACTGCAG
AGCTGTCCGAGACCCTGACAAGGGAGGCCCAAGGCAACAGTTCCGCAGGAGTGGAGGCAG
CAGAGCAGAGGCCTGTGGAAGATGGCGAGAGGGGCATGAAGCCAACAGAAGGGTGGAAAT
GGACCCTGAACTCCGGGAAGGCTCGAGAATGGACACCCAGGGACATAGAGGCTCAAACCTC
AGAAACCAGAACCTCCAGAGTCAGCAGAGAAGCTTCTGGAATCTCCCGGTGTGGAGGCTG
GAGAAGGGGAGGCTGAGAAGGAGGAGGCGGGGGCTCAGGGCAGGCCTCTGAGAGCCCTGC
AGAACTGCTGCTCTGTGCCCTCCCCCTCCACCAGAGGACGCTGGGACTGGAGGCCTGA
GACAGCAGGAAGAGGAAGCAGTGGAGCTTTCAAGCCCCCACCACCAGCCCTCTGTCTCC
CCCACCCCGAGCCCCAACTGCCCCCAACCTTCTGG

Sequence 981

GCCCCGCGTCCGAAAAGAATGGGTGAACCAATCGGCCTTTGTGAATTTATTCACTGCCTT
CTCTGTACCAAGCACTGGGTAAAGGCATTTTGTGGAGCATTAGACAGTAACCCTCAAGGA
GCTAGAGAACC GGATGGGAGACATGAGCGGTAATTAACCTCACTTGTTCCTCAGAGTTTCT
ATTTGTTTTGATTTTCTTTTCTGTGACTTATTTTCTATTTTCTTCTCCATGTAATT
TTCATATGGCCCACTAATAAACAACCTGGAATTACAAGGAAAAAAATTCTTCCTC
TAATAACTTTCCAAATTTGTGGAATATTTATTTGTAATAGCAGTTATCAGTTATGCTTAT
ATAGCATTAAAAATTTCTCCTCCTTTGACTACACACACAACCACAGTGTGGTTCTAATCAT
GGAGATATCAGTAATTTTGTAACTGAATTTTGTAGGACATTTCTNTGTTTAGCATGTAT
GCAAACCTGATATGTAATCTGAGGTTCCAAAGTCAATTTTTTTCTTTTT

Sequence 982

TNGGGAGTCGACCCCGCGTCCGGTTTTTGTGAGGCAGTGAGACCTAAGGTAACCTTTATC
AAAAGGATGGAGTTGGGAAAAGGAAAACCTACTCAGGACTGGACTGAATGCGTTGCATCAA
GCAGTGCATCCGATCCATGGCCTTGCTGGACCGATGGGAATCAAGTTGTCTAACTGAT
TTGCGGCTTCACAGTGGAGAGGTCAAGTTTGGGACTCCAAAGTCATTGGACAGTTTGAA
TGTGTCTGTGGGTTGTCTGGGCCCCACCTGTTGCAGATGATACACCTGTTCTACTCGCT
GTCCAGCATGAGAAGCATGTCACTGTGTGGCAGCTGTGTCCCAGCCCTATGGAGTCAAGC
AAATGGCTTGACGTCTCAGACTTGTGAGATTAGGAGGGATCACTACCTATCCTTCCCCAG
GGCTGTGTGGCACCCAAA

Sequence 983

GTGTGACCCCGCGTCCGCGCCCTGCCTGCAGTTGAGATTCAGATGCCTTCTGACAGAGT
TCAGCCTCTTGAGAGTCTTGGGGATTGTTGGCACCTAAACAGAATCAGNGACCCGGGTG
CTTTGTGGCCAGCAGCACAGAATCAAACCCGCATCCCAGCATTGGGOCACCCATCTGAGG
GAGGCCAAAATCATCACAGATGCTGCTGTGCTGCAGACAGATACATGCTAGTCCAGAGAG
CCGCCCCGTGAGATGGCTGTGAGAACCATGTGTCTAAGGCGTAAGATAAGGATGGAAGGCT
GTCCAAGTTATTTGGAAGGCCTCGGCAGCTTGGGATTAGCTTGGGAGCGCAGCGCTGCAA
AGTGGAATAATGAAAAGACCACACAGGCCCAAGCAGTCCAGAACTGGGCAAAAATATT

TABLE 1
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CTGCAGTGGGGATTTATTTTTT

Sequence 984

CACGCGTCCGGAGTACGGAGTTGTTCCCTTACTGGCTGAAAGATATATTGGAATTGTAAA
GATGCTTTTTCTCATGCATTGAAATTATACATTATTTGTAGGGAATTGCATGCTTTTTT
TTTTTTCTCCCGAGACAGGGTCTTGCTCTGGCGCCAGGCTGGAGTACAGNGGCATGAT
CTTGGCTCACTTCAGCCTTGACTTGGGCTCAAGTGATCCTCCTACCTGAGCCTTCTGAGT
AACTGGGACTACAGGTGTGCACTCCTCGCCTGGCTAATTTTTTATTTTTGTACAGGCAG
GATCTTGCCACCTTGCCAGGCTGGTCTTGAACCTCTGAGCTCATGCCATCTGCCTGCCT
TAGTCTCCAAAATGCTGGGATTACAGGAGTGAGCCACCATGCCCGGCTGGCAGTTGCAT
GGAAGAGAACACCTNTTTATGGCTTACCCTCTAGAATTTCTAATTTATGNGNCTGTTGA
AATTTTTGGTTTTTTTACCT

Sequence 985

GTCGACCACGCGTCCGCTCGGCTTCTGCTGATGGTCAGGGTTTTGGCAACTCCCCGGTG
TGAGAGGGGTAGGGAGTGCTCCCGGCGGCGACGGGGCCGAGTTACCCAGCCGCCGGGCA
GTAGTCGAAGGCCCGGCGCGCATGCTCTGGGTGCCGCGGTGCGGGCAGTGAACGCGCGC
CGGGCGGGATGGGCCGCGCGCGGCCAGAGCTGTACCGGGCTCCGTTCCCGTTGTACG
CGCTTCAGGTGACCCCGAGCACTGGGCTGCTCATCGCTGCGGGCGGAGGAGGCGCCGCCA
AGACAGGCATAAAGAATGGCGTGCACTTTCTGCAGCTAGAGCTGATTAATGGGCGCTTGA
GTGCTCCTTGCTGCACTCCCATGACACAGAGACACGGGCCACCATGAACCTGGCACTGG
CTGGTGACATCCTTGCTGCAGGGGCAGGATGCCCACTGTCAGCTTTCTGCGCTTCAGGC
ACATTAACAGCA

Sequence 986

CGCCACGCGTCCGCGTACGCGTGGGCGCGACCGAGCGTGCGGACTGGCCTCCCAAGCGTG
GGGCGACAAGCTGCCGGAGCTGCAATGGGCCGCGGCTGGGGATTCTTGTTGGCCTCCTG
GGCGCCGTGTGGCTGCTCAGCTCGGGCCACGGAGAGGAGCAGCCCCGGAGACAGCGGCA
CAGAGGTGCTTCTGCCAGGTTAGTGGTTACTTGGATGATTGTACCTGTGATGTTGAAACC
ATTGATAGATTTAATAACTACAGGCTTTTCCCAAGACTACAAAACTTCTTGAAAGTGAC
TACTTTAGGTATTACAAGGTAAACCTGAAGAGGCCCGTGCTTTCTGGAATGACATCAG
CCAGTGTGGAAGAAGGGACT

Sequence 987

GGTCGCCCCGCGTCCGTAGCAGTTACATCTACGAGGCTATTATGGATTGGAGGATGAGAA
GGGAACTGCATGTACCTCAACAAGGCGTCGGTCAACACCGCGAAGTTTGGCAGGCTTGAC
AAGTGGAGTTTTTGAATCTATAATGGTTCAAGTTTTGAGACAGGAAGAAGAGCTGAGAGC
AAAAGAAGAAAAAGGCTTCGGGAGCAGGAAAGAAAAAGAGCAGAAGAAGCTAGTCAAAA
GGAAATAGAAGAATGGGAAAGAAAACTTCTAGCTCAAGCAGCTCCAACCTGTATGGAGAC
CATGTGGGAAATTCAGCTATTGGGCATTTCTTTGTTTAGCTCAGCAAATTTCTAAATTT
GCCAGAAATAGTCTTTTACCGAACTGGAACCGTTGTCTTCTGATGCCTCAGTGTAATGCT
TTTCTATCGAAAATAATGACTTCTTATTTAAGTCCTCCCATCGCAGA

Sequence 988

NCCCCGCGTCCGAGTCCCCTGTCTGTGGCACCAAGCACTCCCGACTGTGCGCTGACTCTC
CCCGCCAGCCAGCAGCCTTTTCCAGAGAGGCTGTGGTCCATAGCCTCTGTTCTGTTTTCA
CTGCAGGACCAGGCACGAAAGTTAAACAAAATGAAGATTTTTCTGAATCTCATAAAAC
AGTGTGTTGTTGTGGATCACTGCCCTTATATGGCAGAATCTTGCAGGCAGCATGTCGAGTT
TGATATGCTGGTGAAGAATAGAACCCAAGGAATCATTCCTTTGGCCCCCATATCTAAATC
ATTGTGGAATGCTCAGTAGAATCTTCCATGGAATATTGTAGAATAATGTATGATATATT
TCCTTTCAAAAAGCTGGTGAATTTTATTGTGAGTGACTCTGGAGCACATGTTTTAAATTC
TTGACTCAAGAAGACCAAAATTTACAGGAGCTAATGGCAGCATTAGCCCGCTGTTGGGC
CTCCTAATCCTCGGGC

Sequence 989

GTCGCCCACGCGTCCGTTCTGTTGCTGATGGACCTGCTTGCAAAGGCCAGCTCTGTTGC
ATTCCCAATTTTTGACACCACCTCAAACACCAACGCCCGGGGAGAGCATGGAAGATGTTT

TABLE 1

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ATCTCAATGAACCCAAACAGGAGAGCAGTGCTGATCTGCTTCAGAACATTATCAACATTA
AGAATGAATGCAGCCCCGTTTCCCTGAACACAGTTCAAGTTAGCTGGCTGAACCCCGTGG
TGGTCCCTCAGAGCTCCCCCGCAGAGCAGTGTGAGGACTTCCATGGAGGGCAGGTCTTTT
CTCCACCTCAGAAATGCCAACCATTCCAAGTCAGGGGCTCCCAACAAATGATAGACCAGG
CTTCCCTGTACCAGTATTCTCCACAGAACCAGCATGTANAGCAGCAGCCACACTACACCC
ACAAACCAACTCTGGAATACAGTCCTTTTCCCATACCTCCCCAGTCCCCCGCTT

Sequence 990

GTCCGGCTGGGACCTCCTCCTGTTGGGGTCCCCATGAACCCTTCCAGTTCAACCTTTCA
GGACGGAACCCCCAGAAACAGGCCCGGACCTCCTNCTCTACCACCCCCAATCGAAAGACA
ATGCCTGTGGAAGACAAGTCAGACCCCCAGAGGGTCTGAGGAAGCCGCAGAGCCCCGG
ATGGACACACCAGAAGACCAAGATTTACCGCCCTGCCAGAGGACATCGCCAAGGAAAAA
CGCACTCCAGCACCTGAGCCTGAGCCTTGTGAGGCGTCCGAGCTGCCAGCAAAGAGATTG
AGGAGCTCAGAAGAGCCACAGAGAAGGAACCTCCAGGGCAGTTACAGGTGAAGGCCAG
CCGCAGGCC

Sequence 991

NCGCGTCCGCTTAAATGACTCGTTATCATTTTGCAATGAATGGAAAATCATTCTCAGTGA
TACTGGAGCATTTTCAAGACCTTGTTTCTAAGTTGATGTTGCATGGCACCGTGTTTGCCC
GTATGGCACCTGATCAGAAGACACAGTTGATAGAAGCATTGCAAAATGTTGATTATTTTG
TTGGGATGTGTGGTGATGGCGCAAATGATTGTGGTGCTTTGAAGAGGGCACACGGAGGCA
TTTCCTTATCGGAGCTCGAAGCTTCAGTGGCATCTCCCTTTACCTCTAAGACTCCTAGTA
TTTCCTGTGTGCCAAACCTTATCAGGGAAGGCCGTGCTGCTTTAATAACTTCTTCTGGT
GTGTTTAAATTCATGGCATTGTACAAGCATTATCCAGTCTTCCAAGTGTTACTCTGCTGT
ATTCTATCTTTAAGTAACCTAGGAGACTTTCCAGTTTCTCTTAATTTGATCTGGCAATCT
TTTGGGTAAGTGGGTATTTANAAT

Sequence 992

TTTTCACTGCAGGACCAGGCACGAAAGTTAAAACAAAATTGAAGATTTTTTCTGAATCTC
ATAAAACAGTGTTTGTGTGGATCACTGCCCTTATATGGCAGAATCTTGACGGCAGCATG
TCGAGTTTGATATGCTGGTGAAGAATAGAACCCAAGGAATCATTCTTTGGCCCCCATAT
CTAAATCATTGTGGACTTGCTCAGTAGAATCTTCCATGGAATATTGTAGAATAATGTATG
ATATATTTCTTTCAAAAAGCTGGTGAATTTTATTGTGAGTGACTCTGGAGCACATGTTT
TAAATTCTTGGACTCAAGAAGACCAAAATTTACAGGGAGCTAATGGCAGCATTAGCCGCT
GTTGGGCTCCTAATCC

Sequence 993

CGCGTCCGGGCAGGAGCACCACTCAAGGAGCTACACCCCTTGATCGGCTTGACCGCCTT
ACCTCAGGGGTGCTTATGTTTGCCAAGACAGCTGCAGTCTNTGAGAGAATTACGAGCAG
GTTCCGGGACCGGCAGCTGGAGAAGGAGTACGTGTGCCGGGTGGAAGGGGAGTTCCCCACT
GAGGAAGTGACCTGTAAAGAACCCATCTTAGTGGTGTCTTACAAAGTAGGGGTGTGCCGT
GTAGATCCCCGGGGCAAGCCCTGTGAGACAGTGTTCAGAGGCTAAGCTACAATGGCCAG
TCCAGTGTGGTACGGTGCCGGCCACTCACAGGCCGCACACACCAGATTGAGTCCACCTT
CAGTTCTTGGGCCATCCATTCTCAACGACCCCATCTACAACTCAGTTGCCTTGGGGTCC
TTCTCGAGGCGGGGGCGGCTACATTCCCAAGACAAACGAGGAGTTGCTACGGGACCTGG

Sequence 994

ACGCGTCCGCGACCGCTGGGCATGCGGGTGTGGCGCGGTATCCCCGCCCTGCCAGCAT
CTGCCCCACGTTTCTTCAGGCTAAACTACCGGGATCCCGGGCTTCTTCTAAAGTAAAC
TCGCTCCGGAAGGCCAACAGTCCAGCGGCCAGACGGGCACCTGGGAACGCGGGCCTAAC
GCGTACTGGAGACGGAGTGGCGCCCGGCACTGCGCGCCTCCTCCCCGCGGGAGACTGCG
TGCTAAGCTCAGCAAAGCCCCGCTGTGGAGACGGAGCCATGTCGCCCATTACCTAATGAA
ACTGAGAAGGGAGACTCAGTCTCTTCTAGCCCCGAGCGCAAGCTCTGCTGGACTTGGC
ATCGTCCGCCCTCCACGATCCACACTCCGGGTTTTCCCATTTCCAGCTCGGCTGCAAC
CGAGAGACAGACGGAAGAAAC

Sequence 995

TABLE 1
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TCCTCCTGGCCCTGTTAATGTCGGGGCCNGGCCGGGGGAGGATGGCGCCCTAGAACCCGG
CCTTGCTGGGGTAGGGGCGGGAGGGGACGGGGTGGGGACCGGCCATGTCGGAGGTGACCC
GGAGTCTGCTGCAGCGCTGGGGCGCCAGTTNTAGGAGAGGCGCCNNACTTCGACTCTTGG
GGCCAGCTGGTGGAGGCGATAGACGAGTATCAGATATTAGCAAGACATCTACAAAAGGAG
GCCAAGCTCAACACAATAATTCTGAATTCACAGAAGAACAAAAGAAAACCATAGGCCAAA
ATTGCAACATGCTTGAAT

Sequence 996

CGCGTCCGGCCTGAGCCGGCGGGTCCCCTGTGTCCGCCGCGGCTGTGCTCCCCGCTCCC
GCCACTTCCGGGGTGCAGTCCCGGGCATGGAGCCGCGACCGTGAGGCGCCGCTGGACCC
GGGACGACCTGCCAGTCCGGCCGCGCCCCACGTCCCGGTCTGTGTCCACGCCTGCAG
CTGGAATGGAGGCTCTCTGGACCTTTAGAAGGCACCCCTGCCCTCTGAGGTCAGCTGA
GCGGTTAATGCGGAAGGTTAAGAACTGCGCCTGGACAAGGAGAACACCGGAAGTTGGAG
AAGCTTCTCGCTGAATTCGAGGGGGCTGAGAGGATGGCCACCACCGGGACCCCAACGGC
CGACCGAGGCGACGCAGCCGCCACAGATGACCCGGCCGCGCCGCTTTCAGGTGCAGAAGCA
CTCGTGGGACGGGCTCCGGAGCATCATCCACGGCAGCCGCAAGTACTCGGGCCTTATTGT
CAACAAGGCGCCCCACGACTTTCAAG

Sequence 997

GTCCGGCCAGGAGCCAGGCCGAGCGGGAGCTGACCANGGCTTGA CT CGGGTACAGAACGA
GGCACCAGTCCCCTTGCGAACCGAAGGGCCTCGCAGTGGATGGAGGAGGCCAGCCCTGA
GGTCAACGCCAACAGGCTAGCCTGGCACGGGGCCTACAGGGTGGGTAGGCGGGCGTGCC
CGAGCCGTCCAGGGCCTTCCCTCAGGTCCCGGGCCGAGGGGCCTACGCTGCGGGCCCGGA
ACAAGGCCCGACTCGGCCCCCTCGGGACCAGAGCCCCACCCGATCGGAAGGCGGATCCTTT
ACCAGGGCCATAGGCCAGTGACTGGGCGGGCCCCCTTNGGGCCTCCCATTCGGGGCCCGGA
CTANGGAACNAGGCCCGNNGAGGCCCTTGGCCTACCAGACCCTTTNTNANGCCGACA
GCCGNCANGGAAAGAT

Sequence 998

CGTCCGGCCCAGAGCCCGCAGCACGCCGCCGCGCAGCCTAGGTACCTCCAGCATCTAG
CACAACGTCTGCAATGGAACAGGCGAGCTGTGAATATTTGTGGAATGCATGGGTGGA
AAGACCTATCACCTCACTCTAGAATGCCAGCATGTTGGAGCATGAGGACCAAGAACCAT
GGTGTTCCTCCACTCATCAGAGCCGTATCATTTTGATGCATGCGCCAAGAAAGAAAATTC
AATCATCAGACTGAAGCAATCAAACCTCAAATGGTGCTGTAACTGAACCACACATAGAC
ATGCCATTCTTCTAAGGACCTTAAGATCCACCCAGGAGGAGCGCTAGCTGCTGTTCCC
CATTCGATGCCCTTTTCGGCCCCGGAAGTAGCCGGAAGATTGCCCCGCCAAAATTC
TAACCAGCAAGTTAGGTGTGGCATCTTCCACAAGCANGGAGCCGTTGTAGGAAAAAGNG
GTCTTGGGGAAGGTTTTTCG

Sequence 999

CCCGCGCCGGCAGTTTCNATGGTGTGTAATAATTTGAGAAAATGAATGTGTATACATACA
AGAGTAAGTCAGATTGTTAGACTCATCCCTCAGTATTCATATGTTTTGTGACTGATTTT
ACAGTTCTCTACCTTTCTCATTTACAAAAAAGAAAAGAAAATTTGATTCAGC
AATTCCTAAAGTATTGTATTCAGTGACATCTTTGGAAACACCAGTTTCTGTTATCAACT
TCAAATAAAGTCAAGTTTTATGTATGATCTAAAGGGAAAACAAGTTTTTTTTCAATCC
TGTGATAATTTTTCTTTTGAATGAGGTGTTGCAAGAAATGGAAAATTAACCACT
CTGTAACAATTTTGCTGTGCTTCTTTGATTTTCTCTGTTTTTGTAAATGGGTACCTTA
TATTTGTACCTTTACATATTGAATTCATGAGGAGAGGTTATGCACAGCCTAGTTATTGA
CATTCCAGGGGGTTTAAAAAAA

Sequence 1000

CCCGCGTCCGGCGGTGGCGGTGGTGGCGGTGGCGGCGGTGGCGGCGGCGGCGGAAGGGGGC
GGAGAGGAAGGAGCGCGCGGGACCGGGCCGGGACAGCGCGTACTTTGGGCTCCGGGAGT
CGCTCCGCGCCCCGCGTTGTAGCAGCTGCCGCTGCAGCCATAGCAGCAGGTCAGTCATTG
GCACCATGAACTGGAATAAAGGTGGTCCTGGCACTAAGCGAGGATTTGGCTTTGGAGGTT
TTGCCATCAGTGCTGGGAAAAAGGAGGAACCCAACTCCACAGCAGTCCCACAGTGCCT

TABLE 1

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TTGGGGCAACCAGCTCTTCTTCTGGATTTGGAAAGTCAGCTCCACCACAGCTTCCTTCTT
TCTACAAAATTGGATCTAAGCGGGCCAACTTTGATGAAGAAAATGCCTATTTTGAAGATG
AGGAAGAAGATTCTAGCAACGTTTGATTTACCTTACATTCTGCT

Sequence 1001

CCGGCCGCGCCGCGCCGCGCCGCGCCACCGCCTGGGGGTTGGTTGAGGCGGACGGCGGGG
TCCGGGCGCGAGTACGTCGTTCCCGCTGCGCTAGGGGAAGCGGGCAGTCAGAAAAATGGG
TAAGAAGAGTCGAGTAAAACTCAGAAATCTGGCACTGGTGCTACAGCAACTGTGTCACC
AAAGGAAATCTTGAACCTGACCAGTGAGCTGCTGCAGAAATGCAGCAGTCCGGCGCCTGG
CCAGGAAGAGTGGGAAGAGTATGTGCAGATCCGGACTCTGGTTGAGAAAAATACGAAAAAG
CAAAAAGGTCTTGTCCGTTACTTTTGATGGAAAAAGAGAAGATTACTTTCCTGATCTAAT
GAAATGGGCCTCTGAAATGGGGCTTCTGTGAGGGTTTTTGAAATGGGTAACTTCAAA
GAAGAGGGGCTTTTG

Sequence 1002

GTCCAGCACGCGTCCGACGCACCAAAGGGCAAATACTCGGTAGCGACTCAGAGGGAAAGT
GGGGTCTCTCCTGGGAGAGCAGGAGGCTGCCAGAAAAGAACTCAGGTCAGGGGTGCATAG
GCGGCTGAGGAGTGCGGGACGGGCTGAGAGTTGGGGTGCTCCCCGCCCCGAGGTGGGT
CGCAGATCCCGCGGGCCGCATTGGCCCCGCTGCTGCGGGATGCCGAGGGGCTGCAGGAGC
TGGCACTGGCGCCGTGTACGAATGGCTGTACAGACGAGGACCTGGTGCCGGTGTGGCGC
GGAATCCGCAGCTGCGGGAGTGTGGCGTTGGGCGGCTGCGGGCAACTGAGTCGCCGGGC
GCTTGGGGCTTTGGCCGAGGGCTTGCCACGCCTGCAGCGCCTGT

Sequence 1003

CGCGTCCGCTTTNCCTTCTTGGTTCCACCTCAAACATCCCTTCCGAAGTGAGGCTTTCCC
TGACTGGGGAGCATAAAGTAGCATCTCTCACATNCCATACACCCCTACAACGAATCTATG
CAATGGCCCTGCTCTGCCATCGCCACCTGAAACCATCTCAATAAACACATTTTGGATAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAGG

Sequence 1004

ACGCGTCCGTTGGCTGCGAGGAGCGCCGAAAGGTCAGAGGAAGGAGCTGTGGGAAGCTC
GCAGCAGGTATCGGAGCTTAAGCCAGTGGAATTTGGGGGCCCTGGGCTCCCTAGCCGGCTG
CGGTGTGAGAAATGGAGTGGGCAGGAAAGCAGCGGGACTTTTCAGGGCTCTGGGTTTGAGA
GAGCCGAAATGACCATGACTGCCAACAAGAATTCCAGCATCACCCACGGAGCTGGTGGA
CTAAAGCCCCTCGGGGACTCTGAGCAGGTCTCAGTCAGTCTCTCCACCTCCAGTTCTCT
CCCCACCAAGGAGTCCCATCTACCCGCTCAGTGATAGTGAAACCTCAGCCTGGAGGTACC
CCAGCCACTCCAGTCCCGGGGTGCTCCTTAAGGGACCGGCACCCCCCACT

Sequence 1005

NCCACGCGTCCGGCAGCGCTGCGACGGGACCGCGCGATTCTCTCCACGCATCTGGCCC
GCGTTCTGGGCCTCGGCACCGGATCCCGCGGGGGTGTGGACCCAGGGCCCACTCTCCC
CGGCGCGGCCAGGGCCCCCAGCGTGCGAGCGCCTAGGGGATGCCGAGCTGCTCAAGATG
AGGAGGTGCGCGGGGCCGGGGCGGAGCAGTCGCAGTTCCCCGCGTGTGAGCCCCACCCA
TCCCTGGCGCCAGCGCTTTCCCGACCACTCGGGTTTCGGCTATGCGGGAGCCGNGAGGAGG
AGGCTTGAGTCGTGGACCTGAGACCTCGGGAGGTGCTGCTGTCTTTAAGTGGCT
TNGGGGAAAGTGAAAGAAAAACNCCNAAAATTGGAGGACTTTGCTACCAGGGACCTAACGG
CACCAGTGG

Sequence 1006

ACCACGCGTCCGGGAAAGCCCCGAAGTGCCACGGGACTTCTGTCTAAGGAAGAGCCTC
GTGAAGCTCCTCCACTGGGGAGTCAGTGGCCTTCGTTGTATCTGCCCCGCTTGTCCACCT
CCTAGAGTGAATCCCGCCTGGAGGCTGGGACACTAACCAAGAAGTGGCACATGGCATAT
CACGGGAGCAATGTTGCCGCTGTACGGAGAGTGCTGGACCGAGGGGAGCTGGGAGCAGGT
ACTGCCTCCATCTGANGCGTCTTTGAAGGGAGAACCTGGGGTAGGGTTTCGAGGAGCN
GCGAGAACTGTGCACCTCTCGGGAGGAGCAGCCCCCTCCTGTGCTGCTTTCCCCCTCCC
TTCAATATGCTGGGGGCGGAGACCCTGGCCTCAAAGTGCAATTCCGGGACCCCAAATCC
CAGCGGACGCACCAGGCTTAGGTGGGCGTCAAGTTGNTGTGTGCCCCCTGGCTTCTACA

TABLE 1
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CCCCGGGACCCCTTCGG

Sequence 1007

TCGCCACGCGTCCGGAAAAATTTATGCCTTTTTATTCATAACCCAGCTGTGGACCACTGC
CTGAAAGGTTTGTACAGATGCATGCCACAGTAGATGTCCACATAATAAAATTCATAGTTA
CCAATGCAGTTTTGATATATCATTGGATTCTGTCTTTGAGTTGTAGGTTATTTCTTAGCT
GCATGTTTTAACTGAATTTGCATAGAGTTGTATGTTAATGTTTCAGTTAAGAGAAAAAC
TTAAGATACATGAGTCATTACATAATGGGTATGAAATCTTTATAATCACCCCTCCACCCT
CTATGGTGTGAGTACACATCACGTGTCATAGATACTTAAATGTAAATGTTAACACTTTT
CCTTCCTGCTGAGGATGTTTAGAGCCTAGTGCCAGACCCATTCAATTCCTTTTGATT

Sequence 1008

GCGTCCGGGCGNGCGGAGTTTTGTCCATAACGTGGGCAACCGCGCAGCTGGAGGATGGCCT
CACTCGGGCCTGCCGAGCTGGGGAGCAGGCGTCGGGGGCTGAGGCGGAGCCGGGCCCCG
CGGGGCGCGCCGCGCCGCTCACCGTCTCTGTTGGGGCCCTGCTCCCCCTGCAGCGGG
AACCTCTCTACAACTGGCAGGCGACCAAGGCGTCGCTGAAGGAGCGCTTCGCCTTCCTCT
TCAACTCGGACTGCTGCGATGTGCGCTTCGTAAGTGGGCAAGTTGGCGNGCCGCGCCGCG
CTGGGGGCGCGCAGCGCATCCCCGCCACCGCTTCGTGCTGGCGGCCGGCAGACGCGCTC
TTTG

Sequence 1009

GCNCCCCGCGTCCGTTAGAGCTCAGGAAGTTATTAGGTGCAGCCTCTGGAGCCATACTCA
CGCTGCAGTGCATAATGGGAAAATTAGGAGCATTAAAGAAATTTAGTAGTGTGTTGTA
AGGAAAATAAGCTACTTACTGAGATCTGTTTCTTCTATTGCATGTTTGCTTTTGAGGGAC
AGCTTCTGTCAAAAGTGAATCATCACCAAGTGGGCTGTTAGGAAGAATAGGGTTTT
ATTTACTTTTTATGTCAATTAACCTCAACAAAAGGCCACGCTGGCTGCTGTCATGCCAT
CTGGGTATGCATTAACATTAATGATGATCAGCCTTGAGGTTCTATTTATCTTGATTTGG
CTTTATAAAGTTTGTGAGAATGGTGTGAGGNGCCAGAAGTGCTAAGGAGAAAGAAGCTA
TGGGCCAAGTTAAAGAATTTGAATGCAAAGGCCAGGNATGGGAGTTTTTCATAA

Sequence 1010

CGCCNCGCGTCCGGTGAGCCCCAGCAAGGAGATCAAGATCGTGTCTGCCTGAGGAAGCAG
AGCCATGACAATCGGAAATCTACCAGCTCAATGTCCTGCATGTAGACTACCGGACCGTGA
GCAATCTGATTCTGACGGGCCCACGGACGATTGTCATGGAAGTCATGGAGGAGTTAGAGT
GCTGAGCTCCTGGGCTCCAGCCCTCCAGTGGCCTGTGGGTGAGGGAAGCCAGAATGAC
ACAAAGCAATGCAAAGACAAGATTGCCATGCAATGGATGGTTTTGGACATACGAGTCTT
CTCCGCACATACATGTCTAAAGTTGAGTTTTATACACTGGAATGTGGAAGAACCCGGGTA
TCATATCTTTTTTAAAAAATGTCCAGTGTAGAAAACATTTGGGAAAC

Sequence 1011

ATTTTTCTAACATGGGTTTGAACGCTTATAACCAAGTTTTATAAACCCTTGAACACTGCA
GTGAGTTATCAAAGCCACTGCCTGCAAAGTGGATGATTTAAGATTTTACACGCATGAAAA
TGAGTGTGCCATCTCCTGACCAGTGCCTTTTGACTTAGGTACCCAGATGCCACTTGTGAG
CAGCAGGATACTTTTTACAACACGAAAGCATAATTATTTAGAAAGAGAGTAGAAGGG
CAGAATAGAATTCAACTTACAGAAGCACCGGAGTAGTGTTGTGGTTGGCTGTTATCTGTC
CCCCTGGGAGGAGGGACTGTTTTGCTCCCTGTTTTNGATGTTAAACAGTAGCTTAAAGG
CTTTCCCCCCCATACCAACTTACAGNCAAATGACAAAGAACCGGTGGNGGTTTTCAACAG
ATTCTACAAACATGCATTTTTCCCTTCCCACTAAATGGG

Sequence 1012

GTCACCNCGCGTCCGCTCGTCCCTGGGCACTGATGTCACCGAGGGCCCTGCTCACCC
AGCCCCCAGACTAGGCTGTTCCATGCAAATGAGGAGGAGGAGCCAGAGAAGAAGGAGGT
ATCGGAGCTGCGCTCTGAGCTATGGGAGAAGGAAATGAAGCTTACAGACATCCGCTTGA
GGCCCTCAACTCTGCCACCAACTGGATCAGCTTCGGGAGACCATGCACAACATGCAGTT
GGAGGTGGACCTGCTGAAAGCAGAGAATGACCGACTGAAGGTAGCCCCAGGCCCTCATC
AGGCTCCACTCCAGGGCAGGTCCCTGGATCATCTGCATTATCTTCCCCACGCCGCTCCCT
AGGCCTGGCACTCACCCATTCTTGGCCCCAGTCTTGACAGACACAGACCTGTACCCAT

TABLE 1

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TGGATGGCATCAGTACTTTGTGGGTCCAAAGAGGGGAAGTGACCTTCGGGTGGGTGGTGA
AGG

Sequence 1013

CGCGTCCGAAGAAAATGGGATCCATGAAGAACAAGACCAAGAGCCACAGGATCTCTTTGC
AGGGGATGGTATGAATGCATATGTAGCCTACAAAGTTACAACACAGACAAGCTTACCATT
GTCTCAGAAGCAAACAGTTTTGCAGGTAAAAAGNAAAGATNTTAGTGACTTTCTTGGGT
CTTTATTGAGAAGCTTTCCNGAGNAAGCCACTCTCAGAAATTGGCTTCATATGTTCCCTC
CCGCCCCCGGAGTAAGNAGCCCTCATAGNGGGATTGACATAAAAGTTGAAAAGNTTGNGG
AACGGAAGAATTCTNTTCTTTCTGGCAGNAATTTCTTTGAAAAAACNGAGGGGCCCG
CTTTAGAAAAAGGGTACCCTTTTCAGGAGGGATTGTTAAAATTCANTCCTACCCCATGGT
TTAACAAGGGACTCCTTGACNGTTCAGTAAGTAGGTTTCTTTGNAAAAAGGAAAGGAA
GCTGCCACCGTGCCCGTNGGGGATACCCNAAGACAATTGANGTTGGGTGGCTTGNTC
CTTNTCTCAAAGGAATGGTTTTCAAANCAAAAGCCACCAAGATTGCCNGTCCANGCC
AAAAAAT

Sequence 1014

GTCGCCCCGCGTCCGCGGNCGCGTGGGGTGCTNGTCACCAGACTGCACCCTTGCCAGCAG
CTTCGAGCTCTCGAAGTAANTTATCGCANGATGGCCGGCGCCTCACCTAGGAGAACCAG
GAAGGCAGGCCNCGCTAGAACGACGGNATTGAATTTTACTATTGNCAAAACAATCACATT
CAAATTCATTCCACTTAAACCTGAAAACATTGGACCACACAA

Sequence 1015

AGTCGACCACGCGTCCGGGCGGAGGGAGCGTGAAGTGGCTGCGCTGCGCAGGGCGCTAGGAGGCA
TTGTGCGCGCTCAGGCCCTTTTGTGAGAAGCAGACCAGCCTGGGGGCTGGCGGCAGGACA
CCTGTGTCTGCATGCTGAAGAAGATGGGTGAGGUCGTGGCCAGAGTAGCAAGGAAGGTCA
ACGAGACGGTGGAGAGCGGCTCTGACACTCTGGACCTGGCCGAGTGCAAGCTGGTCTCCT
TTCCCATTTGGCATCTACAAGTCCCTGCGGAATTGCTCTGGCCAGATCCACCTCATACCC
TGGCTAACAACGAGCTTAAAGTCCCTACCAGCAAGTTCATGACCACATTGAGTCCAGCTCC
GAGAGCTCCACCTGGAGGGGAACTTCCTACACCGCCTCCCAGCGAGGGTCAGTGCCCTG
CAGCACCTCAAGGCCATTGACCTGTCCCGGAAACCAAGTTCCAAGGACTTTCCT

Sequence 1016

CGCGTCCGCTTTTCAGTGAAGAAAAGGGAATTACACATNGAATCGACACATCAGTAATACC
GATACAGTGAAATGGGCCTCTAATAAGAAATTTNAGCGNGTTTTCTGATGTGCCATTTTTT
TTGTCTTTTTTAAAAATATACCATANTTATAAAANTGGNAAATANNTTTTTGNACCCAT
TTAAATTGACCCCTTANAGNACNCTTGCCGTNATGNTGAAANGCTAGACCTATNGAAGC
TGNCTTGANGATATNTGTTTTTTAAAAAATTTTTTACAACNTACTTGTGGAAAATA
TAATATGCACTATAAAATATGATCNTATATCCTATTATCTATNATCTAAAAACACTTCCT
TGGACNCATTTANACGTAAATTAATAATGGGTCTTTAANGAAGANTAATGGGGAGGCC
CTTTTTTAAACCTATGGNNCAATCTTTTTATGNCAAGGGGNGGACCATTTTATTAATA

Sequence 1017

GCGTNCGCTGCGCCCGTGGGACCGGTGAAGTTCTGGCGACCCGGTACAGAGGGGCCAGGT
GTAAGCATCTCTGAAGAGAGACAAAGTCTGGCTGAAACTCTGGGACAACGGTTGTTTAC
AACCCTTATGCTGCCCTTTCCATAGAGCAGCAGAGGCAGAAGCTGCCGGTATTCAAGCTT
AGGAATCATATTTTATACTTGATAGAAAATTATCAGACAGTGGTGATTGTTGGTGAACA
GGATGTGGGAAGAGCACACAGATTCTCAGTACCTTGACAAGCCGGCTGGACAGCTGAA
GGAAGAGTGGTAGGAGTGACCCAGCCTCGAAGAGTGGCTGCTGTTACACATGATCTTTCT
TNCCAAAGGTTGCAGGGAGAGTAGCTGAAGAAAGGGTGCAAGTGGTGGGCCACCAAGGTGG
GCTACTGCATCCGCT

Sequence 1018

AGTCGCCCCGCGTCCGGTGGGAATCTTCTNACTTCTTGATCCATCTGGGAGAGAAGACGT
ACCATTATGTGCCCGAATTCGAAAAGTGCCATAGCAGCTACCATCATCTATGCCTATG
CCTGGCTGGTTCCTCTTGCACTCTGGGGTTTCTCATGTGGAGAAACAGCAAAGTTATGA

TABLE 1
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ACATCGTCTCCTATTCATTTCTGGAGATTGTGTGTGTCTATGGATATTCCTCTTCATTT
ATATCCCCACCGCAATACTGTGGATTATCCCCAGAAAGCTGTTGTTGGATTCTAGT

Sequence 1019

GGAGTCGCCACGCGTCCGGTGGCACGATCTTGGCCCACTGCAAGCTCCGCTCCAGGTT
CACGCTATTCTCCCGCTCGGGAGCTGGGACAACAGGTGCCCGCCACCACGCTCGGCTAA
TTTTTGTATTTTAGTACAGACGGAGTTTACCCTGTTGGCCAGGATGGTCTCGATCTC
CTGACCTCGTGATGCACCTGCCTTGACCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCA
CTGCGCCCGGCCAATAATTTTTTAGTTTAAAGTTCATTTTGTCCCGCTGATGAAAGTT
ACAGCAGCTGCCCAGTGCCTCTGTCCACACCCACCTCCCTGGTGTACTTGCCCCCTACAG
CAGCAGCCAGATCCTCCCTGGATTAAAATTGCAACTGGTGGCCTAACCCAAAACCTGA
GAAAAAATTCTCTATCACATCCACTCTTCTGGCATTGTAGAATCTC

Sequence 1020

GTCCGGTNGATATATATATTTACCTCCTTAGTAATGCAAGAAGTGTTTGTGGGAAGCAGA
GAAGCAAGCAACTGTATTTCTTGTTCTCACCTAAGCATTACTGGAGGATAAGCCACATCA
GTCTACAAAGAGGTTTTATACAAACATAATAAGATGTAAAATGGACCAAAAGTTGAAAG
CACATTCTTGCAAGTAAGCACCTGTTACTCTCCAAGCAACCATGGGTTTACCATATTTGG
GGATTTTTTGAACACTTAGNCACTTTCTTGCTCCNAAGGGGACNTTACAAAAAGTGNA
NACATTTTTGTANTGTNNCCCGTTATTAaaaaagctaACNTTTTGTAACTNCTTGTTTT
CAAAAGGGCTTGNTTTTTGGACAAATTCAAAAATGGAAAAATGGATTTTCCACCGTTT
TAAGCCTCAATTTTAAGCCCCAAGGTTCCCAAAAAATTTTTTAANGAAAAAGTTATTCGG
GTATTAGGTNGNCCTGGGTAAAAAACCAAGAANAAAAACCATTNAAAACAAAGCCCATT
CAAAATTCNTTGGAAAAAA

Sequence 1021

CAGGGAGTCGACCCCGCGTCCGAGCATCTTGGGGAATTTATATTCCTTTGTGAGAAATGT
TTTGATCATAAGCCTAGAATGATAAGTAAAAGAAATAAGATAATTCTACTGCTTGTTCT
CACCCGGTTACAAAGCATGAGTTTGAAGACAATAAGTGCCTTGTCACATTTTGCAGAGAG
ACAACAGTAAATACTCCAAAATACGTTCTTTTCATGGTCAGTGTGAGCTTGATTTATGT
CGACATGAAGTTCGGTATGGCTGTTTAAGGGAAGATGAGTGCTTTTATGCCATAGTCTT
GTGGAAGTGAAGTCTGGATAATGCAAATGAAACAGGTATCTCACATGATGCTATTGCT
CAAGAGTCTAAACGATATTGGCAGAATTTGGAAGCAAATGTACCTGGAGCGCAGGTCTTG
GTAATCAAATAATGC

Sequence 1022

CNCGCGTCCGCAAAGCAAACGACAGCTCAGGGGGCTCCAAAGACCTCATTTCATAGCAGCA
AAAGGAACTCAGGTAGTCAAAATATCAGTACACATGGGACGTGTCAGTTTAAACAGGAG
CCCCGGAAGAGTCATAGTCCAGCAGTGACACATCAAACCTAGCAGCTGAAAGGGACTTG
AATGTGACCATCAGTCTTAGTACTGATAGACCAAAGCAGCGATCACAGGCAGTAGCAAAC
GAGAGGGCACACCCTGCCAGCACAGCAGTGNCGAAGTCTGGGGAAGCCATGGCCTTAAAC
AAAATAAGACTCAGAGCAAAGAAGTCAATGCAAATAAACACAAAGCCAATACGAGTCTT
CCTTTTCCTAAGTTCACTGTCAATTCAAATCGCTTAAGGAAGCAATCTATTAATGAGACA
CCTTTGGGAAGTTTGCAAAGGATGATGGAGCTAGAGGGGGCTCATGGGG

Sequence 1023

CNCGCGTCCGGCCAACCGCCGAGGAGCAGTGCCCTATTCAGCACAGTGCGCCAGGGCCAC
TGGCAGATTGTTGATCTTTTACTCACCCATGGAGCTGATGTCAACATGGCAGACAAGCAG
GGCCGCACTCCCTGATGATGGCTGCTTCCGAAGGCCATCTAGGAACCGTGACTTTCTG
CTTGACAAGGTGCCTCCATTGCTCTTATGGACAAAGAAGGATTGACAGCCCTCAGCTGG
GCTTGTTTGAAGGGCCATCTCTCAGTAGTACGTTCTCTGGTGGATAACGGAGCTGCCACA
GACCATGCTGACAAGAATGGCCGTACCCCATGGATCTGGCAGCTTTCTATGGCGATGCT
GAGGTGGTCCAGTTCCTGGTAGATCATGGGGCCATGATCGAGCACGTTGACTACAGTGGA
ATGCGCCCTTTGGATAGGGCAGTGGGGTG

Sequence 1024

GTGCCCCGCGTCCGAGAAGTCAGGGAGTGGAGGTTCTATAAGGAATTAACAGCTGAGGA

TABLE 1
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CGGAAGGGTTTGTTCCTGTTTGAACCTAACGCAAGTGGAAAAAGAATACTCAGAATGTA
TTTTTCTACTTTACATCTGCTGGGGAAGGAAATGTGTCAGGAAGCCGCTGCATCTGGTCA
TTTCATCGCATCAGAATCACAGCAGACGTGGAAGATTCCATGTGGTGGGGAATAAAGAAA
TAACTTTATGCTCTCCTGAAAAACAGCGGGAGCCTATGTGTGTGTGCGACACTGTAATCT
CAAGGAGATTCACTCAGAGCTGTCTCAGTCCAACCTCCTGCATGACCAGATCTTCCCTTAG
CATCTTTTCTGTGATGAAATATTATCTTGTGTTAGAGTTAGGAATAGGAACTAACCTGTA
GGAGCATGTCCCCAAATGGACATTTGAATGGACTAACAAAAACAACCTGGAAAGACTGAAT
TTCCGACACAAAGGAATGATGGGATCAAAAAGAAAGC

Sequence 1025

GGAGTCGACCCACGCGTCCGGTTCGACAGCCTCCGCCACATCCTCCACCTCTCTTGGTCCA
GCGAGCGTTGCCGGGCCAGGGTCAAGCGGAGGGCTCCGACGGCGCGGACGGAGCGAAGCG
CCGAGCCATGGCGCACCAACCGGGCATNCACGCCACGGGAAGAAGCTGAAGGAATTCCTT
GCCAAGGCACGGGCTGGCTCTGTGCGGCTCATCAAGGTTGTGATTNGAGGACCGAGCAGT
NTCGTGCCTGGGTGCNCTTCGCAAGGGAGCCAGNTAAGGCNCGCTNNGGGGATCAGGGACT
ATTGAACAGGNGGCCCGTGGCTTGCNACCTGCNTGGGACCGCCCCAGGCAGGCCCTGCN
TACCTGGCTCTACCGCGCTTCGACTNACAAGAAATGGCTCAGGGGNCCTTTCGAAATGGGG
CTTCTTTCTTCGCCCTTGTTCCGCNCTNGAATAAACCTCCCCCGTGGCGGCTTGAA
AGANTGCCTGTACCGCCGGGNCATGCNNGGCCCCACAAGTGGAAAAAGGGAAG

Sequence 1026

AGGGAGTCGACCCACGCGTCCGCTCCCGCCAGGCGCTTCTCGGACGCCTTGCCAGCGG
GCCGCCCCGACCCCTGCACCATGGACCCCGCTCGCCCCCTGGGGCTGGNGATTCTGCTGC
TTTTCTGACGGAGGCTGCACTGGGCGATGCTGCTCAGGAGCCAACAGGAAATTAACCGC
GGAGATCTGTTCTCCTGCCCTAGGACTACGGACCCCTGCCGGGCCCTACNTTCTCCGTTT
ACNTACTACGACAGGGTACACCGCAGTAGCNTGCTCGCCAGTNTCCTGTTACNGGNGGGC
CTGCNGAGGGGGCAACCGCCCAACCAATTTCTTACACCCTGGGGNAGGGCTTGCCGAAC
GAATGCCTTGCTTGGGAGGGATTAGNAAAAAAGGTTTCCCCAAAAGTTTGCCCGGCTGG
CAAGGATGGAAGTGTTGGGACCGAACCCAGGATGTGAAGGGGGGTTCCACCAGAAAAAA
AGGTTATTTTCTTTAATCTTAAAGTTTCCANTGGAACATGGTNGAAAAAAATTTCTT
TTTTNCGGGTGGGGGTGGTTCACCCGGGAAC

Sequence 1027

CGTCCGTAGTCTCTCTCGTGGCCCCGAAAAAAGAAAGAAGGTTGGGGCCAGTCACC
CCCACATCCCTTTATGGAGGCTTCCAGATCATGGATCCTGTCACGCGCATCCCGGTGAAG
AGAGTCCACCAACAGGCTTTGTATGGGGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTG
GTTGATATGGCTCACTGCAGCCTCAGCCTCCCTGGGATCAAGTGATCCTNTCACTCAG
CCTCCCAAGTGGCAGGGACCGCAGGAAGGCCTGGACGACGGCCCGGACTTCCTCTCAGAA
GAGGACCGCGGACTTAAAGCAATAAA

Sequence 1028

CGCGTCCAACCCCTTCTCAGCCTGTCTGGGAGCAGAGGGCAGTGGCGGTGGCCCCAAAGG
AGGGACCGCTGACAAAGGAGCCTCAGCCAACCAGGAAAAAGGCTAAATCCACCCTTACCC
CTCCTGACCCCCCAAGTGGAGGGAACAGATCCTGGCCTGAGGGGTCTAGCCTGGAGCA
GGCGCCTGCGCCAGACCCTGGAGAGCCTTGACCCAGAGCCTGTGCTGAGGTCCAGGGAG
TGTGGAGAGCTCCTGGTGTGAGGACTGAGACTGACAGGGGAGCCCCCTCATCTGGCCC
CCTTCCCTTTCCGCACTGTCCGCTTTGTGAGGCTCAGAGGAAGGACAGTCTGCAAGCCCG
CCTAGGAGGTCCATCCCCAGCAAATGTTTGGAGGTCCCCCAGAGAGCAAAGTGGGCCA
TGGCAAGAAGTAGGGGGTGGTTGGACCTGTCACATGAAATGGATCAACACTTGAATGGG
GA

Sequence 1029

CGTCCGGAGAAGATGGGCCTCCCGGGCTCAGACTCACAGAAAGAGCTGGCCTGACCACCA
GGCACTCACTGGCACTGCTGACCCATCCCAGAAACACAATCTCAGGGACCCGAGCAGCT
CCAAGGACGAGAGATACAGCAGACACAACCTAATAGAGAGGGCGCCTGCAGCCTTAACC
TCCACGGCCTTCGATACTTATGCAAGCCTGGTGTGCTCCTGCTCAGAGTCATCCTGC

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GCTCATGCCTTTTCCCGAATGGGTTACCTCTGGCAGTTGCCGCTTCAGTCTTGGCCTTA
GCCTCATCTTGAAGTGGGTAGCTGGCGGGAGAGGGTGGGCTGCGCCCCCTGCTGGCCCTG
AGGCTGCAGAGTTGGGAGCAGGACACCTCACCTGAGTTTCATTTTTTTTCATGTCCAAAC
CATGCACATACTATAGTCCAGAATCAAAGCACTTTTAAAA

Sequence 1030

CCCCCCGCTTTTTNNANNCNCGGGGGGTGNGGCAAACTTTTTCTAGAAATTNGCGCC
ATGTTGAAACNNTNTNCAGCANCCCGGTGCACAGGGNGTAGCCCANCTCCAGGTCC
ACGGAGTGGTGTGGACCTCCACCTCACAGCTGCCTCTGGCAGCCAAGCCTCTTTTCGCC
CGGCCCCAGCCCCTCTGGTTGATAACGGGTGGGCCTCCTCAGCAGCGTGGCTGCCTTTT
ACCTTGATTTCCCCAGGGCTCTCGGCAACATCGATAAACCAAGCCTCGCCACCAGCTGG
GCCCTCCCCACCCAGTCTGCCAGGCTGGGAGCTGGAGCTTGCTGAGTCTTGAATGCCCT
TCTAGATGGCTTCTAGAGGCTCTCCTGGCAAGAGAGGGTCCCAAGGGGAGCCCTGCAA
AGCAAAGGCTCCTTGCTGGGGCGGGATAGAGAATCTCGCCTCTGTCTGGTGTACCT
ACTGGGGGCACAGGAACAATTCCTCAAGGAGACAGTGGCATGGAGCTTTGAAAGACGAA
GTANGTGTTAGCAAGGAAATAAGGAGGAACGGGGTTACGGGCAGAGGAGAAAGCACATG
CCAAGTCAGCAAAGAAAAGTAGAATTCGAAAAACTTTTTTA

Sequence 1031

GGCCAGAGCTACTACGCCGGCCGATGGCGAGGAGCCCGCCCCGGAGGCTGAGGCTCTGGC
CGCAGCCCGGGAGCGGAGCAGCCGTTCTTGAGCGGCCTGGAGCTGGTGAAGCAGGGTGC
CGAGGCGCGCGTGTTCGTGGCCGCTTCCAGGGCCGCGCGCGGTGATCAAGCACCGCTT
CCCCAAGGGCTACCGGCACCCGGCGCTGGAGGCGCGGCTTGGCAGACGGCGGACGGTGCA
GGAGGCCCGGGCGCTCCTCCGCTGTGCGCCGCGCTGGAATATCTGCCCCAGTTGTCTTTT
TGTGGACTATGCTTCCAAGTCTTATATATGGAAGAAATTGAAGGCTCAGTGAAGTGTTCG
AGATTATATTCAGTCCACTATGGAGACTGAAAAACTCCCCAGGGTCTCTCCAAGTATAGC
CAAGACAATTGGGCAGGTTTTGGCTCGAATGCACGATGAAGACCTCATTATGGTGATCT
CACCACCTCCAACATGCTNCTGAAACCCCCCTGGAACAAGCTGAACATTGTGCTTATAGA
CT

Sequence 1032

TCGCCCCGCGTCCGCAATTTCTTTTGAATTCGATCACTTCTACATTCAGCTTGCCAC
ACTCTTTTTTGATGAAGTTGTGAAGCAGATGGTAGCTGCCTTTGAAAGAAGAGCATGTAA
GCTGTATGGTCCAGAAACAAATATACCTCGGGAGTTAATGCTTCATGAAGTCCATCACAC
ATAAAGGCAAAAAAGAACTGGTGCCACCTGCTTCTGACTTTAGTTTGTTCACTTTTAGGA
AGTATTTTCATGACATGTTTTCAGAAGCCAGAAAGCATTTGTTAAACGCAGCTTTGGTTA
TAAACCTGCACCATTTGAAAATTTGCACATAGAATATAGACTCACTTGTACATAGAATTAT
TTCTTCAAGTATAATTCAAATAATATGGACATTATCATGTTCTGCATTACAATAATGGG
ATGTCATCACCATTTGCTAGAATACTGGCATGATTCTTCTGAGCAGAAGTTGAACTGTAA
ATTTAAACCTTTTAATTATCACCTTACCT

Sequence 1033

NCGCGTCCGGCCTTTTGTTTCACTTGCCGGGCAACCGGCCCTGCTGGGGACTACAAGTC
CCGTAAGCCTCCGCGGCGGCACGTCTACCTACACTGTCCAGCCGGCTCCCTTTTTCCC
CCTCCCCGGGGGCCAAGGGCTCCGGCTGCTGCCTGGCGGCCAACGGGCCAGGTAGGATTT
CCGGGAGAGGCTGCTGTGGAGGCTGAGGAGGCGGCGGCGGAGATCTGGAATGAATTTTCT
ATCTGTGAAATTGTGAAGACGAAAAAGAAATTGTGCTAGTTTTGCTGTTGTAAGTCCAC
ATTGCAGAAAGTTACAATCACAGTGCACAAAACAGTATCTCACCTCCCTAACTGGTTAAT
AGTGGCATGGAAGATCCATTTGAGGAAGCAGACCAGCCCACTACAGAGCCAGGCATGGTC
CTGGACAGTGTGGAAGCAGGAGACACAACACCTTCTACCAAAAGGAAGAGCAAGTTCTNA
GGCTTTGGCAAGATCTTTAAGCCCTGGAATGGAGGAAAAAAGTAGTGATAAATTT
A

Sequence 1034

CGTTTTNNTTCTTCCCTTGGATNAATATTTTCTACTGAAAAGAAATGAAATCTCAGTTCC
ACTATGATAAAAGAAACGAATCACCAGTGTCTGTCTCAGTGCCCCCACTGCTCCTCCTATA

TABLE 1
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CCAGCATTGACACTGGTAGCTGAGGAAGGGGACTGCTCAATTTCTAATGTGATCTATTCA
AGAAGCCACATATAAAAAGGCATTGAGGGCTCACTGTCCAGAGAATTGCTTTTGTAATG
CTCCACAACGTATGGGCAAAAGTTTAAGGACTACTGCCTGATGTACCAGGAATCCTGAGT
TCTGTGAAAATCTGTTCAATCCAAATCTGTTAAGCATTTCCAAACATCCAGAGAATGGTT
TCACTGTTGAGGGTGCATGTGGCAGAATCTGTCTCTCTCTGCACCTGTCTTCTGTTACCA
TCCCTGGACAGTGACAGATTTTAAGCCAGCCACCAGAATTCTTTTCGAGTTAACCATTTC
TTAGTTTCTGTAAA

Sequence 1035

GTGACCACGCGTCCGCTCTGACCGCCGCCGGCTTTCACCCACCTGCCCGGCTCATCACC
TCTGACTCCTGCGGGCCTTCCAGCCGGCGCTATCTCGAGCCCCCGACCAGCTCGGCCCTG
CTGTGCGGCATCTCTGCTGTCTCCGGCTGTAGGGCTACCTGCCTCCCTCCCGGGGGGTG
CACTGCGAGTCCGACTCTAGTGGGGGCAGCGCCTAGCGGACTCCCAAACCCGCTCAGGTC
CTGCCGGCCTCACCGGCACCGCCACCCTCCAGCCGGCCGCGGCTCTGCGCTTGCGCGCC
GGCAGCACACAGTGTTAGGGGCGCGCCCTCTGCTCTGGACATGCGCCGCGCTCG

Sequence 1036

GTCCGCCCGCGTCCGGGAAAATGCCGCAGTTTGTTGCCTTGAAACCTAAGAGCAATCCT
TGGTTTTGTTGCTACATTATTTTCCAGACCAACACATCTACCAAGTNGAATTTTATNNA
CTTTAATTTTATAATAAAGTTAGTAGAGTCACTCAACTTACAACTTTATTTATGNTGGC
TTTGGGCAAAAAAATCACTTATAAGGCAGCTCTAAATTTGCCTTGATAAGCTAAATAAAT
TACTTTTATAACTTACTAAAGCAGAACAAACAGTGAACTTTCTAAAATATTCTATNCTG
GAAATAGNGGACAGGGGGATCTTTATTTATAATNCTCATCAAGATGAGTGAGGTTGTTG
ACCAGGATATTTTTATGGTTTTTTTTAATTTTTCTCCAAAGNAATTATTTTAATAGG
AATTCCCAAAAGNAATCAAGAAATTAGTTTTTCAAAAATAAATTTTTTCCAGNTNGATAA
AAAGGAAGGTNGTTTGTAAAATTAAATCCATTATTTTACCACCTTAAAAAATTTGGGGGG
AATACCATTCTAAAGGGAACCTTTTAATTCCTTACCTAATTCANGNTAGGGGNGTCTTGG
CAATTTNGAATANTTTTCTNTTT

Sequence 1037

GCGTCCGAAAAATTTAGGTAATGTCATAAAATTTATTTTACCTTTCTCATTTTCTGAGA
AAATAAATGAAAAAACCTAGATATTGCTTTATTACCAACAGTGTGTAGGTTTTGTAC
ATATGGAAATTTGACACAAAAAATAGGGAATTTGTATAGAGAAGTTTCCCTCTTATAAA
AGGACTCCCATTTGATTGTTGAAACTATAAAATGCATTTTACTTTACCATATCTTGAA
ATGACAAAATATCGCCCTTTGGAAAACCTGACTCTTTGCACCGTTGTAATTTCCAGAGT
CTACCTCAGTTAACCAGGCCTTAGTTTTAGGCAAGGAATGAATTGAATTAATTTTCACT
TCAATCATTTTATGCCAGAATTTTGTCTTTTCTTTTAAAGGCACCATCCTTCCCTCCTTGG
CTGGNTGGCCCTTCCCTCCCATTTAACTTTTCTTTTAAATNCTTTGAAAAATTGGGT
TAAAAATATTTCCAATCCTTTTCTTTTCTCTAGCCAAAGTNGGTTTTGTNATTTNCN
AAATAAAAGGGCCCTCTGGTGGAAAANGGNCTGGAAATTAACCTT

Sequence 1038

CGCCNCGCGTCCGCAAGACTTTGAAAAATNNGATCATGGTTCTTCTCAAAATACCAGCAT
GTCTAGCATCTATCAGAATTGTGCAATGGAGTTTTGATGTCCAGTTGTTACAGTGTAG
AGCTTGTGGAGCTTTAGTTTATGATGAAGAAATTATGGCTGGATGGACAGCAGATGACTC
AAATTTGAATACAGCTTGTCATTCTGTAAAAGCAACTTCTTGCCTCTTCTCAATATAGA
ATTCAAAGATTTGAGAGGTTCTGCAAGCTTTTTCTGAAACCAAGTACCTCTGGTGACAG
TTTACAAAGTGGAAGCATTCCATTGGCAAATGAATCCTTGGAGCACAAACCTGTATCCAG
TTTAGCAGAACCTGACTTGATCACTTTATGGACTTCCCAAACATAACCAGGATCATAA
CTGAAGAAACAGGCTCTTGCAAGTGACCCAAAGTGATGAAATAAAGAGAGCCAGTGGGAGA
TGTCCAAACATTGAAAATTTTCTGTGNTTAATAGGTTTATC

Sequence 1039

TGANATTAGCATCACTTCGTCTACTAAGAATCTTAATAGATGTAAAAATATCTTTTAAAA
CATATGGTAGGATGGGTAAAAATTTGGCAATACTATCCAGGAAGTCACTAAGTACAGATGA
ACTGATTTAGTCCTAATTCCAAGAAGTGATTCACCTACTTGACTAGAAAATTTATACC

TABLE 1

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TGGTAATAACTCCTTGTCCTTGAAGATTTTCAACTAAGGAAAACCTGTTTTTCAGCAGGAC
CTGATTATGCACTGCTATCTAGGTAGGGTCACTTATGGTTTTATAATATATTTAATTGGA
TTATAATATTCCTTTTTTCTTGCTCTTGGACAAAATCCTAGCTTTACTGTAATTTAAAA
AGATGAGTTTAAAATTTAGGCTTTAAAAACATACCAAACATTGATAAAAATGAAATCTA
GATAAAAGTATTTTATCAATGTTTCAGTTGCCTGGATTCAATAACTGTATTATGGTTATGT
AAGGATAATATCTTAGGAAATCACATTATGGTATTAA

Sequence 1040

GTCGACCCCGCGTCCGGTAGCTTAGTTGAGTAGATAATCTTTGTTGTTTCCTCCTTGTA
ATATACAAGCCTTGGCTTCTGTGACATCATACTCTCCTAGATTTCCCCCTGTCAGTGTGG
CTTCTTCTCAGTCTCTGTCCATCCCTGGTGCTCCTGAAGGTTCTGTTCTCAGCCTTACAC
ACATTACCTGGGTGATCTCATTCTCTGCCATGACTTCACTTGCCATATATGTGCTGATTT
TCCCCAAATTCCTATTTCTCCCGACCTTTACATCTATTTTATTTGCAGGTCATATATCTA
ATAAGGAATTGATATCCAGTGACATGTAGAAGTCTGTAATTCAATACAGAAACCAAAC
AGTCCAATTAATAATGGAGAAGAGATTTGAATGAACATTTTCTAAAGAACATCTCAAG
CTCAAGATTTCCAGATAACTTTTCTTCTCAAATCTGCTTCTGTGTTTCTCATCTG
TAGGTGGCACAGCATACATCTGATTTCCCAAGCCAGAAACCTCATAGTTATTCTTGACTC
CAGGAAGAAATATTATTGAGTTTTTAAAAACTC

Sequence 1041

CGACCCCGCGTCCGTGCTGAACTGAGCTCAGGTGTGTTTTCTTCCAAGCTTTCTAGCAA
GGTTTCTACTTAAATCACCTGTGTGCAAGCCCAAAGGACATTTCTATCTATTCTAAGCAG
AAAGGCTGTTTTGTTCAATACAGTGAGTGCTGTTTCTCATGAGTGGGAGGAGCACTA
AACCAGGAGACAGAGGACATGGATTTGGTTTCCAGCTTAACCAGTTAGGACTCTGTCTC
TGCATTCTGGAACCATGATGCCTGCCTGCCTGCCTCACAGGGCTGTTGTGAGGACCAGAT
GAGATGATGTATGTTTCTACTTTTGGAACTCTCTAATTTAAAGTCTTAATATTTTGTCTTC
TGAGTGTGAGGGGATAAACCTGGATGTAGACTATTAAGCAGCATAGGAGAAAAGAACAAT
AGAATCTAATGGACTGGGTTTGCAATCTCTCTCTAATGCACTGCTTCAGACAAAGTGAA
ATCCAAAGGTGTGAAAAAGTATAGCTGCAAAATTGAAAAATGTGTTTCAAGAGT

Sequence 1042

AGTCGACCAACGCGTCCGCTCTGACCGCCGCGGCTTTACCACCTGCCGGGCTCATCACC
TCTGACTCCTGCGGGCCTTCCAGCCGGCGCTATCTCGCAGCCCCCGACCAGCTCGGCCTG
CTGTGCGGCATCTCTGCTGTCTCCGGCTGTAGGGCTACCTGCTCCCTCCCGGGGGGTGC
ACTGCGAGTCCGACTCTAGTGGGGGCAGCGCCTAGCGGACTCCCAAACCCGCTCAGGTCC
TGCCGGCCTCACCGGCACCGCCACCCCTCCAGCCGGCCGCGGCTCTGCGCTTGCGCGCCG
GCAGCACACAAGTGTTAGGGGCGCGCCCTCTGCTCTGGACATGCGCGCCGTGCGAGCGT
CTCTGGGACCGGAAGTGCGGGCGAGCGCGGNTCCCCGGGTCTGACAGGAGCAAGCTGTGG
GCACCGNGGCGGTAGTTGGAGGCGGNAGAGGGTNCGTAGCCGNGCCGNCCTGCCCGNCATG
GGCCTNC

Sequence 1043

AGTCGACCCCGCGTCCGCAGGGGCGTGTTGGCCCCGCACAGATTGAGCCGAGTTGTCGCC
CCGCTGGGAGAAAGTGACCTCCTGCGCCTGAAAAGAAATTTCAATTTCAATATAGGTGACT
ATGCAGCCTGCAATTCAGTATGGTTTGGAGAAGATCTGCCTCTAAGTCCTCGGAGTCCCT
CTGACTCCCAGACACGGACAGGATTGGCTAATGTTTGTGAGTACGATGAGTGGATAGCT
GTGAGGCATGAAGCCACTTTGTTGCCCATGCAAGAAGATCTGTCAATCTGGTTATCTGGT
TTATTAGGTATTAAGTTAAGGCAGAAAAATTATTGGAAGAACTTGATAATGGAGTACTA
TTATGTCAACTGATTGATGTTCTTCAAACATGGTGAAAACATGCAACTCTGAAGAATCA
GGGAATTTTCCAATGAGAAAAGTGCCCTGTAAGAAAAGATGCTGCATCAGGTTTCTTT
GCTCGGGACAATACCCGCAAACTTCTTCACTGGTGTAGGGACATTGGGGTTGATGAAAC
TTA

Sequence 1044

ACGCGTCCGCCCACGCGTCCGGAGTCTCTCTCCCCGGGTGCCTGCCCGCAGCCCGCTCGG
CCCAGAGGGTGGGCGCGGGGCTGCCTTACCGGCTGGCGGCTGTAACCTCAGCGACCTTGG

TABLE 1

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CCCGAAGGCTCTAGCAAGGACCCACCGACCCAGCCGCGGCGGCCGGACTTTGCCCGGTG
TGTGGGGCGGAGCGGACTGCGTGTCCGCGGACGGGCAGCGAAGATGTTAGCCTTCGCTGC
AGGACCGTGGTGAAGCCTCTGGGCTTCCTGAAGCCCTTCTCCTTGATGAAGGCTTCCAGC
CCGCTTCAAGGCACACCAGGATGCACTTGCCACGGNTTGCCGTGCCCCCTNTTCAGCAGT
CCCT

Sequence 1045

GTCCGCAGAATTGACNAATTCAGGAGGTGTAAAAATAAACAGTGTTCTTCTCTACCCC
AAAGCCACTACTGACCAAGGTCTCTTCAGTGCCTCGCTCCCTCTCTGGCTAAGGCATGC
ATTAGCCACTACACAAGTCATTAGTGAAAGTGGTCTTTTATGCCTCCAGCAGACAGACA
TCAAGGATGAGTTAACCCAGGAGACTACTCCTGTNACTGTGGAGCTCTGGAAGGCTTGGTG
GGAGTGAATTTGCCACACCTTACAATTGTGGCAGGATCCAGAAGAGCCTGTCTTTTAT
ATCCATTCTTGATGTCATTGGCCTTTNCCACCGATTTCATTACGGTGCCACGCANTCAT
G

Sequence 1046

ACCACGCGTCCGCCCACGCGTCCGGGCGGGGGCATGGACTACTGACCCATGCGGGGCAGC
GTCCCTGTGACCTGGCCGATGAGGAAGTACTGAGCCTGTTGGAGGAACTGGCCCGGAAAC
AGGAGGACCTTCGGAACCAAAAAGAAGCTTCCAGAGCCGGGGCCAGAGCCCCAAGCGCC
CTCTAGCAGCAAACACAGAAGGAGCTCTGTGTGTCGTCTGAGCAGTCGCGAGAAGATTT
CCTCCAGGACTTGTCCAAGGAGCGCCGGCCTGGTGGGGCTGGGGGGCCCCCATCCAGGA
CGAGGATGAGGGGGAAGAAGGTCCCACCGAACCACCCCTGCAGAACCAGAACCTCAA
TGGCGTCTCCTCCCCGCCGACCCAGCCCTAAGAGTCCCGTGCAGCTTGAAGAGGCCCC
CTTCTCCAGGCGCTTTGGCCTCCTGAAGACAGGGAGTTCTGGTGCCCTGGGTCCCCCTGA
AAGGCGGACAGCGGAGGGAGCCCTGGGGCTGGGCTTGCAACGCTCGGCTTTCTTCTCCT
GGCTGGAAGGGACCTTCACTTANGCCAAGGAGCTTCGNTTGGCAGAATTACCCCGACCC
CCTTCCCGAAGCTTGCCGGAGCCCTTNTGTCTTGTCTGAGGGTCACCAAGCCTTCTTCC
TTTGCTTGGGAGAACTTCTTGNCTTNCCTTCAGGAATTCNGAGCCTGGATTCCCAGCG
AANCCNAACGTTCCCACAGGCTTTCACGGGGC

Sequence 1047

TGTCGACCCACGCGTCCGCTCCCGCCGAGGCCTCCTGCACCACCTAGAGCCCCACCCCC
GACCCACCCCGGGAGGGCAGAGCCAGAAGAAGGCTCATTAGACCTGGGGGACCCAAAGG
GTCTGGCCTCTTTGGGCAGCCCCAGAGATGAGGGGTGAGCAGAGGAGAGCTCTGGGGTTG
GGGATGGGTAGGGACGCAAGCTTGAGTTCTAGCCCTTGCTCTCATTACAGCTGTTGTGTG
ACCCTGGGTAAAGACCCTTCTTGTGTTGACCCTCAGCTTCCCCTCTGTTAATGGTGGCT
TTGGCCAAGGCAATCCACAAACGTCAAATTCCTTCCCCTCCCATCAGTACACACACCGATGC
ACACACACTCTCTCTTCTCTCTCTCTCTCTCTCTCACACACACACACACACACAC
ACACACACACACTAGTTAGTGCCTTGGATGAGGCGGGGCAGTGTGTATATGGACCCCT
GGACTTGCTACCTTCAGGGTTCATACTCGTCCCTCCCCTCCTGGCTCTGCTGTCTGGAG
TCTGGCAAGCGGG

Sequence 1048

CGCGTCCGCCACGCGTCCGCCGNCCGCCGCTGCCTGGGCGGGGCCGAGGATGCGGCGC
AGCGCCTCGGCGGCCAGGCTTGCTCCCTCCGGCACGCTGCTAACTTCCCCCGGTACGT
CCCCGTTGCCCCGCCGGGCCGCCCGTCTCCCGCGCCCTACGGTCCGGTCTCCAGGAG
CGCCAGGCGCTGNCGCCGTGTGCCNTCCGCCGNTCGCCCGCGCGCCCGCGCTNCCCGCCT
GCGCCAGCGCCCCGCGCCCGCGCCAGTCTCGGGCGGTGCTGCTGCCCCCTCTGCCTCG
TGGCCGACCTGCTGNTGGCCGCCGGGCCGGGCGGAGCCTGGG

Sequence 1049

NCCACGCGTCCGCAAGGCGCTACGTTTATTGCCTCGTCTTATTCACTGACCTTTGTAATG
ATACACAGTGAATCTTTTTGACAAAGAGAAATGCAGTGTAGTATGCAGAGCTGCTGTTT
TAATGCCTATGCATTTACTCTTTCCTGATTTAGGCAGAGGTGGCATTTTCTTTATTGCAT
TTCTCTATTTTTTAATGTACCCTACCTTCAGTATTCTCTTTGTAAGTTGGTGAAGTTGCA
TCTGTGGCCTTGAATATTTTATTATCACATGTGGCATAACAGTATCCACACTTTTTAGTT

TABLE 1
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CTTTATTTTTTTTTTTTTATTTTGAGCAATTCTCCTGCCTCAGCCTCCCAAATAGCTGGG
ATTACAGGGTGCATGCCACCACACCCAGCTAATT

Sequence 1050

CGCCCCGCGTCCGGGATGGACAAGACAAATCTCTTGTAATAAAAAAATTACAAGTAATTTTT
ATAGAAGCTCTGCCCTGAGGGAGGGGGAGCGTGACTTCTCACTCCTTCAGTGTGGGCTGC
ACAAGTGACTTCCTTCCATATGGGATCGTTATAACAAAAGACTGTAACAAGGGCTATGGG
AGTTATAAGACAGGAATTGTGGACAAAACCAGTGTATATCATAACATCACACCTTGTA
TGTTGGCAGTACAGTCACTGACCTTGATAAATGTTGATGACATGTTGAGTAAAGGAATG
AGAGAAAGAGGATTGTTTATCTCTGTTTTATCCTTCTCAGAGAACTTAGAGTAAACAAG
GTGTGTTATCAGCCATGCTGATGCCTTTGGTAAACTATTGTGTGANATNGGGTGGTTTGA
ATTGGTCAAGTAGAACTGGGGCTGCCAGGCGCAGCCGGTAAGCATTTCATGTGAGCCT
TAGGGAANAAGTGCATTTTGGTAGGAGCCATCAAAAATAGCTTCTTGATATTTCAATAAA
AG

Sequence 1051

GACCACGCGTCCGGGGCTCCTGGGTGTGCCGCGGCCTCTGGCGCGCAGCGACTCAGAGA
ACGTCTACGAGGTATCCAGGACTTGACGTCCCGCCGCGGGAGGAGAGCGCAGAGCAGG
TGGACGACCCACCGGAGCCCGTGTACGCGAACATAGAGAGGCAGCCCCGGGCCACTTCAC
CGGGCGCCGCTGCAGCCCCCTTCCAGCCCGGTGTGGGAGACGCACACGGACGCGGGCA
CCGGGCGCCCCCTACTACTACAACCCAGACACGGGAGTTACCACCTGGGAGTCGCCCTTG
AGGCTGCCGAGGGTGCCGTGAGCCAGCCACCTCCCTGCCTCGGTGGACAGCCACGTGA
GCCTTGAGACCGAGTGGGGCCAGTACTGGGATGAGGAGAGCCGCAGGGTGTCTTCTACA
ACCCGCTGACGGGCGAGACGGCCTGGGAGGACGAGGCCGAGAACGAGCCCGAGGAGGAGT
TGGAGATGCAGCCGGGCCTGAAGCCCTGGCAGCCCAGGGGGACCCGNGGNCCC

Sequence 1052

CGGCTTTGCCGCAACATGCTCAATTCCCGATCATCGCTCAAAGTGCTAAATTTTCAGGAG
TGAAAAGAAAAAGAGGAAGGAAGAAACCCCTCTCAGGCAATCATGTACAGCCACCCGAAA
CAATGAAATGTAATACATTATAAGACAAGTGAAAGAAGAGCATGGCAGACACACAGATG
CAACTGTGAAAGTTCCTTTCTTAAGAAATGCAAGGAAGCAGGACTTCTTAATTACTTAC
TTGAAGAAATATTAGACAAAGTTCATTCAATTCAGAAAACTCATGGATGAGACTACTT
CAGAATCAGACTATGAAGAAATCGGGAGTGCACTTTTTGACTGTAGATTGTTTCAAGACA
CATTTGTAAATTTTCAAGCAGCAATAGAGAAAAAATTCATGCATCTCAACAAAGGTGGC
AGCAGTTGAAGGAAGAGATTGAGCTACTTCAGGACTTAAACAAACCTTGTGCTCTTTTC
AAGAAAATAGGAGATCTTATGTCAAGTCTACATCAATATCATCCCTGTCTTATTAGGGA
TTACCGTTTCCTAAGCCAAGAGTCATGTCAAATTGCAATCAGGC

Sequence 1053

GACCCCGCGTCCGGGAGGTTGAACGTTCAAGGCTAAGACCGTTACTGAATTGGTTACTAAG
AAGAAGCCAAAGGCTGAAGGCTATGCTGAGGGTGACCTCACTCTCTATCACCGTACCTCA
GTCACTGACTTCCTCCGAGCTGCCAACCCCTGTTGACTTCCTCTCCAAGGCCAGCGAAATC
ATGGTAGATGATGAAGAGTTGGCACAGCATCCAGCTACCACTGAGGACATACGGGTGTGC
TGTCAGGACATCAGAGTGTTGGGGCGCAAGGAGCTCAGGTGCTACTAACTGGAGAACA
AACTTCGGCGATATGTGGCCAAGAAGCTGAAAGAACAAGCAAAGGCACTGGACATCAGC
CTCAGCTCTGGAGAGGAAGATGAAGGTGATGAGGAGGACTCAACAGCTGGAACCAAAAG
CAGCCCTCTAAGGAGGAGGAGGAAGAGGAGGAGGAGGAACAACCTGAACCAGACCTTGGCA
GAAATGAAGGCCCAAGGANGTGGCGGAATTGAAGAGGA

Sequence 1054

GTCCGACCCCGCTCCGCAAGGACCATGTTGTACCACAGCCTCTGCTGAGCTGAGGGACAC
ATGTCTTGGTGAAGACCTGCACCCCTGGAACCTCCACCATCATCAACTGNAGTCTC
ATTTGCAGTGGAGAAAAGAACCCGACGTCCACAGCCAGATATACCCAGCTCCATGCC
AGCCCTTCATGTTTACCTTTTGCTTTGTTAATTACATGTCAGACTCTAGAGGGCCTCCA
GACTAATAGGAAGCATTCTGTAAACCAACCTGCCACCCACTGATTCAGAAATGGAAATCA
CATTCCACAATCTATGGCTTCCACCAGCTAGCCAGGAAATACTTGAAATCAGCATTCT

[illegible]

CCACGCGTCCGCTGTTCCCGACAGCATGGATTAGCTTCCGTGTTCTGAAGTTGTTCTTTT
CATGGTGTCTGACACCGAGGGCCGTTGTTGTCCTCATCAGGCGGGATTGGATGGAGTCTTG
GTGTTTTGCCTTCTCAGGGACCAAAAATGTATCATTGACTCCTTAACAGTGACCTTCCTC
CCAAGGACATATCCGTGTTCATTTTTCATAGGTTTTACTCATATTCATAGGTAGATTCTG
TTAATGTGAGTTGGAAAGAAAAGACCAATTTGTACACCAGTCAACCACAAGACAGTTTA
TCATATAAAATACCTCAATTTTTTGATTCTCATTTCCACCTACAATTGTACTGGTGA
TGAATTTTAAGGGTCTG

TCGCCNCGCGTCCGGGCAAGGAAGGCTCTGTTAATTTATAGCTGTTTAGAGGGGAAAGCA
GTGCAGACCACTTATTAAGCCCGCTGAGGACTAGCTTTCTGTCTTTCATACATTTGGGAA
AGATAGGAATGACTGTTTCAAAGAAGAGAGGTGCACATAATTTATGCAGGCAAGTATGAT
ACTTATTTCAATTGGTTTTGTGAGTCATATATACATATATATACACATATATATA
TGACTTGAAAATTAAGATTTAATACTTTAATGTTTTAAGTGTGGGGGGTTTGGGAAGGAA
GGAATGTAATATNTGGGATTTAGCCTTAGGCTTTAAGTTTTAGGCTGGCAAAGAAATGT
TATTCAGTGGGTTTGAGGTTTGGACTACTTTCTTCAAACCTTAGAGAATTATAACAGGATG
GTGTTTACCTTTGTTACCTGGGATGTCCCAAGACTCTAGCTTCTTCTATCAAGTGGTT
GGGTCTGATAGAAGAGGTAAAAATTGCTCTTGAAATNNTCTACAATTATGCAGGTTCTT
TGATAAAATTTTCTGGTTAAATCC

CCNCGCGTCCGCCNCGCGTCCGCCAGGCCTGGGCGGGGCCGTGACGGCGGCGCTAGGAC
CCGGCGGGCCGCGGGTGC GGCGAGGCCTGGGCGGCCTGAGGAGCGGGACCCGCGCTC
GGCTCCCGGCGCCATGTGAGGGGGCTCGGGGGCCGCGGGGGGCCGGGCGCTCCCGCCGG
AGGTGTGAACCCACATCCCTGCCCCAGGGCCACCTGCAGGACGCCGACACCTACCCCTC
AGCAGACGCCGGAGAGAAATGAGTAGCAACAAAGAGCAGCGGTCAGCANTGTTCTGTATC
CTNTTGGCCTCATCACCATCCTCATCTNTACAGCTCCAACAGTGCCAATGAGGTNTTN
CATTACGGINTNCCTGCGGGGCCGTANCCGCCGNCCTGTCAACCTCAAGAAGTGGAGCAT

TGGGGCCGGGAGGAAGTCTAACCTTTGGGAGACTCCAAGACCGCAGCTCCGAGGTCTGGCG
GGGGTCTGGGTGGCCATGGAGGAGCCCCCTGTGCGAGAAGAGGAAGAGGAGGAGGGAGAG
GAGGACGAGGAGAGGGACTAGGTTGGGCCCGAGGGGGCGCTTGGCAAAGAAGCCCCCTTCC
AGCTGACCGCCGAGGACNGTGTATNACATCTNCTACCTG

TGGCGATCGCTGAGAGGCACGGAGGGCCGAGGCGNCTGGGAGGCGGCCCGGAGGTGGG
GCGCCGCTGGGGCCGGCCCGCACGGGCTTCATNTGAGGGCGCACGNCGCCGACCGAGCG.
TGCGGACTGGCCTCCCAAGCGTGGGGCNGACAAGCTGNCGGAGCTGCAATGGGCCGCGGC
TGGGGATTCTTGNTTGGCCTCCTGGGCGCCGTGTGGCTGCTCAGCTCGGGCCACGGAGAG
GAGCAGCCCCCGAGACAGNGGCACANAGGTGCTTCTGCCAGGTTAGTGGTTACTTGGAT
GATTGTACCTGTGATGTTTGAACCATGATAGATTTAATAACTACAGGCTTTTTCCAA
GACTACAAAACTTCTTGAAAGTGA CTACTTTAGGTATTACAAGGTAAACCTGAAGAGGC
CCGTGTCCTTTTTGGAATGACATCAGCCAGTGTGGAAGA

CCACGCGTCCGGGGTGTTGGTGCGGCGCTGTTGGGGTCTCCGCTGGCTCATGGCGCCAG
GCGTGGGAGGCCGAGTCCCCAGTGCGGAGCACTGGCCCGACTCGGCTGGGAGGACTGCCG
GGA CTCCAGAGTCCGCGAGGCGCTGCGGGCGCTGCACGCCGCCAGGGAAAACAAAGAAGA
AGAGTTAATCGACAAACTGGAGGTGGTCACAATGCCTTCCCATCACCAAAAGGACTGCC

TABLE 1

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AGTGAAGCAATATGCTGTGCAGTCTCAGCTTCCCGTATATGAGTGGCCGGATGTGGGATC
TGGAGAATATGATGTTGGAGTAGTGGCTTCGTTTGGCCGACTTTTGAATGAGGCTCTTAT
TCTTAAATTTCCCTATGGCATATTGAATGTTTCATCCCAGTTGCCTCCCGAGATGGCGTG
GCCAGCCCCGTGTAATCCATACAGNTGCTTCACGGAGACACAGTTACNTGGAGTAACAAT
TTATGCAAATTAGACCTAA

Sequence 1061

GCCGGTTCTTAGGGAGGCAGGTGCTGGCCTGGCCTGGATCTTCCCCATGTTCTGTGTGCT
GCCTTTTGATACGCCTGATTGTCAACCTTCTGGGCATCTCCCTGACTGTCTCTTCACCC
TCCTTCTCGTTTTTCATCATAGTGCCAGCCATTTTGGAGTCTCCTTTGGTATCCGCAAAAC
TCTACATGAAAAGTCTGTTAAAAATCTTTGCGTGGGCTACCTTGAGAATGGAGCGAGGAG
CCAAGGAGAAGAACCACCAGCTTTACAAGCCCTACACCAACGGAATCATTGCAAAGGATC
CCACTTCACTAGAAGAAGAGATCAAAGAGATTCTGTCGAAGTGGTAGTAGTAAGGCTCTGG
ACAACACTCCAGAGTTGAGGCTCTCTGACATTTTCTACTTTTCCGGAAAGGAATGGAGA
CCATTATGGATGATGAGGTGACAAAGAGATTCTCAGCAGAAGAACTGGAGTCTGGAACC
TGCTGAGCAGAACCAATT

Sequence 1062

CCNCGCGTCCGCTTTGAATNCTTATCTTTGATTTAATTTACACGCCAGCATTTTGCCACG
TTCTAAATAATATTTAGCTCAACTGATTATACGTATTAATGACCATTCTAGCAAAGGCC
TACAAGTGGTGTGGGAATCAGGGAAAGGCTGCCTCTTGGTATCTCAACTGGTATTGATT
ATTGCTATCAACTATTTGGGGAGAAAAAATCAAATGAAGCCCTGTCAAATTTTGAAGT
ACTATCTTTGGTCTTCAAACACTTTGTGATGACACCTTAAGAAAAATAAAGTTGAAGTT
CAGGTCTTGCCATTGCCATTACAGACAAATTAGGAGACTTGGTTTACCTGGGAACAAATT
TACTTGAATATTCAGTACCTGAAACTATGCCAAACCAAAGAGCAGCTGCAGTACATTCGT
TATTTTAAATGAACAAGGTTTACAAAGNTTATTTTCATCTATACCGTAAGGNTGGATTTT
TTTTNAA

Sequence 1063

GTCACCACGCGTCCGCCNCGCGTCCGGCGTGATGGAGGAACGCTGGGCACGGGCCCCGGC
GCGGGTCCGGGGGGCGCCCGAGGGGCCCCGGGCGGAGCGGGCGCGCAGGGCGGCAGCATC
CACTCGGGCCGCATCGCCGCGGTGCACAACGTGCCGCTGAGCGTGCTCATCCGGCCGCTG
CCGTCCGTGTTGGACCCCGCCAAGGTGCAGAGCCTCGTGGACACGATCCGGGAGGACCCA
NACAGCGTGCCCCCATCGATGTCCTCTGGATCAAAGGGGGCCAGGGAGGTGACTACTTC
TACTCCTTTGGGGGCTTGCCACCGTTACGCGGNCTTACCANAACCTGCAGGCGAGAAGACC
ATCCCCGCCAAA

Sequence 1064

GTGCCACGCGTCCGCCACGCGTCCGCCTGCCCTCGCCGCCCGCCGCTGCCTGGGCGCG
GCCGAGGATGCGGCGCAGCAGCCTCGGCGGCCAGGCTTGCTCCCCTCCGGCACGCCTGCT
AACTTCCCCCGCTACGTCCCGGTTGCCCCGCCGGGCGCCCGTCTCCCCGCGCCCTCCG
GGTCCGGTCTCCAGGAGCGCCAGGCGCTGCCGCGGTGTGCCCTCCGCGCTCGCCCGCG
CGCCCGCGCTCCCCGCCTGCGCCACGCGCCCCGCGCCCGCGCCAGTCTCGGGCGGTCA
TGCTGCCCCCTGCTGCTGCTGGCCGCCCTGCTGCTGGCCGCCGGGCCGGGCCGAGCCTGG
GCGACNAAGCCATCCACTGCCCGCCCTGCTCCGAAGAGAAGCTGGCGCGCTGCCGCCCCC
CCGTGGGCTGCAAGGAGCTGGTGCGAGAGCCGGGCTGCGGCTGTTGCGCCACTTGCGCCC
TGGGCTTGGGGA

Sequence 1065

CGCGTCCGAACGGCATCATCACGCCCGCCACCATCCCCAGCCTGGGCCCCCTGGGGAGTCC
TGCACTCAAACCTATGGACTACGCCTGGGGGGCCAAACGGCCTGGATGCCATCATCACAC
AGCTCCTCAATCAGTTTGAAAACACAGGCCCCCCACCGGCAGATAAAGAGAAAATCCAGG
CCCTCCCCACCGTCCCCGTCACTGAGGAGCAGTAGGCTCCGGGCTCGAGTGCCCTGTGT
GCAAGGACGACTACGCGCTGGGTGAGCGTGTGCGGCAGTGCCCTGCAACCACTGTTCC
ACGACGGCTGCATCGTGCCCTGGCTGGAGCAGCACGACAGCTGCCCCGTGTCGGAAGAAA
GCCTNACGGGACAAGAACACGGCCACGAACCCCCCTGGCCTCACTGGGGTGAGCTTCTTC

TABLE 1
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TTCTTGTCGTCATCGTCCTTCTTCAAGCTTGGCCAGCAACGAGAACGCCACAAGGAAACT
NGTGAGCCCACGTTNGGCCGTCGGGAAAACACGGGGN

Sequence 1066

CGCGTCCGGCCTCCAGCACATCCTGCCTGCAGAGGGTCTGGCTAGCTGCCTTTTCAGCTC
TCGAGGGATAGAGATTCTACAACCTCCCTCTGTCATCAGTTCAGAGCCACTCCCCTTTG
CACTAGAAGTTCTTGCTTTCAAAGAATGAGGGTGTGAGGGAGGGAGGGGTCAAGAAACAG
AGTGACAGGGGAAACAGGCAGAACAAAGTCAGGGCAAAGGACCCAGCATGAATAGTTGTG
GAGGTGGAGGTGGGGAAGCAGCCTCACATCTCACACTTCCTTCTCTTAAATGTGAG
CAGCTGACTCCAAGCCTTGTGGAAACTCTAGAAGGTAGAACCAGCCATCTGGGGAAGCTG
GCCTTACAGATGCCCCGTCTGGCATAGTGGGAGGTTCTGTGCTCTGAGAACCCAGTGT
GAATCTAGACATTCAGCTGCAGCCTGGGAAGAAGCCTGTGTTTTCTTTAAAAAGTCT

Sequence 1067

GCGTCCGGTCTTAGGGAGGCAGGTGCTGGCCTGGCCTGGATCTTCCACCATGTTCTGT
TGCTGCCTTTTGATAGCCTGATTGTCAACCTTCTGGGCATCTCCCTGACTGCTCTTCA
CCCTCCTTCTCGTTTTTCATCATAGTGCCAGCCATTTTTGGAGTCTCCTTTGGTATCCGCA
AACTCTACATGAAAAGTCTGTTAAAAATCTTTCGCTGGGCTACCTTGAGAATGGAGCGAG
GAGCCAAGGAGAAGAACCACCAGCTTTACAAGCCCTACACCAACGGAATCATTGCAAAGG
ATCCCACTTCACTAGAANGAGATCAAAGAGATTNGTCGAAGGGGNCNNAGTAAGGCTC
TGGACAACACTCCAGAGTTCGAGCTCTCTGACATTTTCTACTTTTGCCGGAAGGAATGG
A

Sequence 1068

TCGACCCCGCGTCCGGCTGGTTTTCCGTCTGGTGAGGGGTACTTCCGGGTCCGACGGCG
CTAGCTGCAGCATCGGAGTGTGGCAGTGCTGGGCTGGCCGGCGGGCTGGGCTGCGGCCCG
CGCGCGGCCCGGCATGCANGGGGGCAACTCCGGGGTCCGCAAGCGCGAAGAGGAGGGCGA
CCGGGGCTGGGGCTGTGGCTGCGCCGCCGGCCATCGACTTTCCCGCCGAGGGCCCGGACC
CCGAATATGACGAATCTGATGTTCCAGCAGAAATCCAGGTGTTAAAAAGAACCCCTACAAC
AAGCCAACCTTCCCTTTTGCAAGTTTGCAAACCAACTCTTGCTGGGTTTTCTTGCTGGAA
GCACNTTGAGCCCACTGTGCATGAACCA

Sequence 1069

CCGTCCGGGAGGTTGAAGTTCAGGCTAAGACCGTTACTGAATTGGTTACTAAGAAGAAGC
CAAAGGCTGAAGGCTATGCTGAGGGTGACCTCACTCTCTATCACCGTACCTCAGTCACTG
ACTTCTCCGAGCTGCCAACCTGTTGACTTCTCTCCAAGGCCAGCGAAATCATGGTAG
ATGATGAAGAGTTGGCAGCATCCAGCTACCACTGAGGACATACGGGTGTGCTGTCAGG
ACATCAGAGTGTGGGGCGCAAGGAGCTCAGGTCGCTACTAACTGGAGAACAAAACCTTC
GGCGATATGTGGCCAAGAAGCTGAAAGAACAAGCAAAGGCACTGGACATCAGCCTCAGCT
CTGGAGAGGAAGATGAAGGTGATGAGGAGGACTCAACAGCTGGAACCACAAAGCAGCCCT
CTAAGGAGGAGGAGGGAAGAGGAGGAGGAGGAACAACCTGAACCAGACCTTGGCAGAAAT
GAAGGCCCAGGAGGTGGCGGAATTGAAGAGGAAAGAAAAAGAAG

Sequence 1070

GCGTCCGGTGTCTGGAGGAAAATGTTTCTGGGGAAGATGACTCAGTCATTTTGTGGCGAGA
CACCTTTTGTTAACTCCCACTGACCACTGTTGGGAGCCTTCTGGAATGATCGTGGGCTG
AGCGGAGATGTTTTTTGCAAAATGAACTGAAGCTGAAAGAAAGGAGAATTCGAGTGAAC
CAAGAGAAATCCAAAGACCTGGGGAAGGAGGACTTAAGATGAAAGTGAAGCAAGAGAGGG
AAGGGGAAATGAAGTGAATGCGGTGAGGGTGTGAGAGAGGTTTGGGTTAGGAAACATG
TTTTAGTGCTATTTNCAACCAGGG

Sequence 1071

CACGCGTCCGGGACTGATCTCNAGGACCAGCACTCTTCTCCAGCCCTTAGGGTCCTGCT
CGGCCAAGGCCTTCCCTGCCATGCGACCTGTCAGTGTCTGGCAGTGGAGCCCCCTGGGGG
TGCTGCTGTGCCCTGCTGTGCAGTTCGTGCTTGGGGTCTCCGTCCCCTTCCACGGGCCCTG
AGAAAGAGGCCCGGAGCCAGGGGCTTCGGTTCGGCTGGCTGGCTTCCAGGAAGCCCTA
CGAGGGCCGCGTGGAGATACAGCGAGCTGGTGAATGGGGCACCATCTGCGATGATGACTT

TABLE 1
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CACGCTGCAGGCTGCCACATCCTCTGCCGGGAGCTGGGCTTCACAGAGGCCACAGGCTG
GACCCACAGTGCCAAATATGGCCCTGGAACAGGCCGCATCTGGCTGGACAACTTGAGCTG
CAGTGGGACCGAGCAGAGTGTGACTGAATGTGCCTCCCGGGGC

Sequence 1072

CCCGCGTCCGCGGACGGCCGCGGCGGGACCTTAGGACCCGCGGGCTCCAGGGCTACT
GTCCGTCCGCCACTGCGCGCCAGCAGGTCTGGTCTCCGCTCTCCAACAGCTGAAAGGCC
GGCGCAGTGAACACAGAAACGAAAACCAAGAAATGCCTTATTCCACAAACAAAGAGTTGA
TACTTGGCATCATGGTGGGCACTGCTGGAATCAGCTTGCTGCTCTTGTGGTACCACAAGG
TCCGTAAACCAGGGATAGCAATGAAGTTACCTGAATTTCTTCTCTGGGTAATACATTTA
ATTCAATAACTTTGCAAGATGAAATACATGATGACCAAGGAACAACAGTAATCTTCAAG
AAAGGCAACTTCAGATACTGGAGAAGTTAAACGAATTCTGACAAATATGGAAGAACTCAA
AGAGGAAATCAGATTTCTTAAAGAAGCTATTCCAAAGCTGGAGGAATATTTACAAGGATG
AACTTGGGAGG

Sequence 1073

CGCGTCCGCTGAGTTCNAGGATGGTTTTTCTTGGGACCAGACATGAACAAAAGTTGACC
TCATGAGCACTTCAACCTCTCCAGCTGCCATGCTCCTCCGAGAGGCTGCGGCGACTCTCCT
GGGGCAGCACTGCTGTCCAGCTCTTCATCCTAACAGTGGTGACAGTTTGGCCTGCTGGCC
CCCCTGGCCTGTCAACGACTTCTACACTCTTACTTCTATCTGCGCCATTGGCATCTGAAC
CAAATGAGCCAAGAGTTCCTGCAGCAAAGCTTGAAAGAGGGTGAGGCTGCCCTCCACTAT
TTTGAGGAGCTTCCCTCTGCCAATGGCTCAGTGCCCATTTGTCTGGCAGGCCACCCCCCGG
CCCTGGCTGGTGATCACCATCATCACTGTGGACAGGCAGCCTG

Sequence 1074

CGTCCGTGAAAATCCAAAGATGTATCATTTTTATTTGAATCCATCATGCAGTGACATTT
CAGATAATTTCTTCAGTCTCCAGATAGGAGTGTATCCAAACATCTAATTTTATGTGCAC
TGTGTATCTTATATGAATGTTTTATTTATATACCACATGCAAAAATGNCCATATGCACT
ATTTAAATGTTTTAAATAATATATTCCTTCTTTATAATGCTAAATCTATATGAGTACCAT
ATTTTTATAAGTCAGTGGTCTGACNGGNTTCATTTTTNAANTAACNNNNNGCTTCAAAATG
GGTATTCAANGNGAAAAGGGTGGNTGTGAGGAGAAANATGTGAAAGNNGNNTGGNGNNT
CTTTTGCCTTTGGGCCAGGAATTNGGGGGGNCNAAAATNNACCCANAACCTGGNNNAAAAN
TAGNCCANTTGGGGGNGANAGGTTTCACTTTGGGGCNCNAAAAANAAAANCCCCGGGTTT
TTTNTNTTTCNCAAAAATANATTNTTTTTGGGATTTTTTTTTGTNCCCCCCCCGNATTAAA
TGGGGANTTGGCTGGNGTCTTGGCNCCTNTCATTTGTGCCAGACCTTTTTTTTATTAATA
AAGAACCTTGGGAAAGGTCTTAAGTNCATTTGGGAAAAAAAAAAAAAAAAAAAA

Sequence 1075

GAGCCGNCCCACGCGTCCNCGNCGCGTGGGCTACCTTGGAAGCAGTCATCTCTCAGTCT
TACATTTGGAGAATGTGGATGGCATGACATCAGAATTCCTTTATATAATTTAACTTCAGA
ATAGTCTGAGATCATCGAAGCACGATGGTCAAGGGAATTCGTTTTTGTTTAGAGCAAA
TATGTTTGCTGTTTGTCTTTCATCACAACATCAGTGGAGTTTCAGCACCTTACAGAGCT
CAGTGAACCCCTGGTCACCATCAAAGTTAGCACACAACAAAGCCAACCACGTGTCCCCC
TCACAGATGACAATGGCTGAACTCTGAGTGAAACCACCTGTATGGCCGGGCACAGTGGCT
CA

Sequence 1076

GCCCCGCGTCCGCTTTTTGAGAATCTCTGCTCTGTTCCCTAGGTTCAAGTCTGGGTCCTGG
GAATACAGCAGGACAGACCTCAGCTTATCTTTCATAGAAATTATACAAAGAGAATTGGG
GAGACAGCTAAGAAGAAAACAAAGAAATAAAGCAGTTACAAATTGTGATAAAGTGCTTTT
GAAGGAAAGAAGGGGTCTGAGACAACAACAGGGAAGGGGCTCTCTTGAAACAGTAGTTG
GGAAGGAGGCAGACATGCACCAAGTGTGTGGTGACAGGTGCTCTGAAGGAGGTCAACAGG
ACCTGACCTCTTTGAAGGATCAGAAAATACTTCCCTGAAGGACTGACATTTGAGCCTAGA
CCTGAAGGGTGAGCCATCAAGCTAAGACAATTGGGGAAGAGCATTCCANGGAGAGGGAG

Sequence 1077

CGCGTCCGATCTTTGTCTGCTTTCCTATAACTCAGTACTGTAACCTCAGTACTCTGAAATA

TABLE 1
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GTTTCCTTTGTTAATAGAGTCACTTTTATAGTACTGNGCTTGAGGNNATATACAGAGTAT
TGTGTCCAAATTTATCATTGCACAAAGTGTTTTGGAAATTCCTGGTTACTCCTTAGTAA
ATTACCTGTAATTGGGTAAATGCTGGTAGGGTTTAAATCTGATTGCTAAAGTGAATTC
TCTATAAAGTGAGTTTTGATACATAGAACTTTNCATATAATTCTTAAACTCATGTGTCA
TGATTTTTCATTTATAGTTTTTATATTCAATTAACATATGTTGTTCCCTTACCATTACAG
CTCANAATTCTGCANATGCAGATTTTTGCAAACCTTGATGCATTTGGACAGTCTAGTGGT
TCGAGTAATTTGGAGGTTT

Sequence 1078

TNCGGGCGGCTGCGGCGGGCGGGCAGGCGGGCAGGCCGGCAGGCGGGTGCGCGGAGGGCT
GGTACCCCTNAGCAGGTGGGCGGGGTGCGGTTGGNGGCGGCGGCTGGGCCGGGGGCTGCC
CGGCTGCGCTCGGGCCGTGCGCGGNGGCCGTGCGGGCACGCCATGGACTTCAACATGAAG
AAGCTGGCCGTGCGACNGCGGGCATCTNTNTTCACCCGGGCCGGTGCCANTTCACGGAGGA
GAAATTTGGCCAGGCTGAGAAGACTTGAGCTTGATGCCCACTTTGAAAACCTTCTGGCC
CGGGCAGACAGCACCAAGAACTGGACAAGAAGATCTTGAGGCAAGACAAGAGGTGCC
TGCTGCAGCCCCAACCCAGTGCCCCGAGTGGAGGGAATTANCTGTATGAAGAAGCTTG

Sequence 1079

CACGCGTCCGTGCTGAGCGGTCCCGAGGGGAGGGGCCTGAGGCCGAGTTCAGTCCGTGA
CCCCTAGCCAGATCAAGTCCATGGAGAAGGGGGAAAAGGTCTTGCCCTCCCTGCTACCGGC
AGGAACCTGCCCGAAGGACAGGGAGGCCAAGGTGGAAAGGCCAGCACCCCTCCGTGAGG
AGCAGCGTCCCTCTTCCCAACGTGAGCACCGAACGTGAGAGACCCAGCCTGTCCAGGCCT
TCAGCAGTGCAGTGCACGAGGCTGCCCCCTCCAGCTCGAGGGGAAGCTGCCATCTCCTG
ATGTCAGGCAGGACGATGGGGAAGACACCCTGTTCTCGGAACCCAAGTTGCACAGGTCA
AGCTCAAGTAATGTCGTCTTGAAGACGGGATTTGATTTTCTGGACAATTGGTAAAATGTA
TTAGAAAAATACAATGAAAGAACCCTAAAATGTTTTCCAAAATGGTGTGGTGGAGGAGGA
TAAAAAAGGGCCACCTTTTCTATGATTTTACTGGTTTCTTGACACTCTTTTCTTAATC
ATTTGGAACTGGTCAATACTGNCAGATTTTTT

Sequence 1080

GTAAGCCAGGTGCTCCCCCTTCACTTCCTGTGTGCGGAGCACGCTCGCCCTGGGAGTTTC
ACTAGAAAGAAGGTTGCCATGGGCCAGTGGGACAGCTTGGATCTCAAGTGCACGCGGATG
CCCCAGAATCCAGGATCTCAGCTGAGCTGTTTGTGGATTATTAGATCTGACTTAAAAGA
ATATTATCCAGCAATGCAAATGAACAACTATAACTACACACAGCTGCATGGATAAATGT
CAGAAACATGACGTTGAAGTGTGAGAAGCCAGATGCAAACCGAGGACTCACTGTGCAATT
CTGTGCATGTACAGTGGCCAGGAGAAGGGAGCACTGGCTTTTGCTTTCATCAGGCCAAAG
ATGCCCTTTCTTTGGGAATACGTTCAAGTCCCAAGAAAGACACCTCCTCGGAAGGTGGCA
TCTTTCTCCAACCTGCATTCTTTGGATCGATCAACCCGGGAGGTGGAGCTGGGCTTTGAA
TACCGATCCCCCGACTATGAACCTGGCAGGGCAAAAGCCTGAAAGTTTGAAGAAAT

Sequence 1081

TGCTCTCTACCTGTTAGCTGTGTAGCATTGGGCAGGTTACTTAACCTGTCTGTGCTTCA
TCTGTGAAACAGGAATAACAGCATTATTAAGGATTGTTTTAGGATTGGATGGGTAAATAG
ATGTAAAGTCTTAGAACTATATTGAGCATCCCATCAAGGCATTGTATTATATTGAAACAA
TGGGGTTTNTTCTCTTTATNCTTTTTTAACTATATAATGAACACTTTTGATCTTAAGT
ATTNCTAA

Sequence 1082

CCCGCGTCCGGTGAATGTTAGTATTGGGTGTGGGATGCATCAGGGACACAGGTTTGTAAA
CCATGACAATTCAATTGTAAACTAAAGCCNAGTGCCCCCTGTAGTCCCAACTGCTGGGG
AGGGTCACTTGANCCCTAGGGGGGGGAAAATGCAGTGGACTGGATTTTNGGCCCTTGCAC
TNCAAACCTGGGTGACATAGTGAGGCCCTTGCTTCTACCANAAAAAANANNANNNN
NNANGGTGCCCGGGCGCTTAGAACTAGGTCTTAGAAGAAAAAACCTCCCAACCTTC
CCCCTGAACCTGGAAAAACATNAAAATGGAATGCCAATTNGTTTGGTTGGTTAACCTTTG
GTTTTATTGCAAGCTTTATAAATNGGTTTACCAAAATTAAGGCCAATTANGCCATT
ACCAAAAATTTTCACAAAAATAAAAGGCCATTTTTTTTTCACCTGGCATTCTTAGTTT

TABLE 1
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NNTGGGNTTTTGGTCCCAAAACCTCATCNAATGGGTANTCTTAATCATGTCCTNNGGGATC
CCCCCGGGTTACCCGGAGCCTTCGGAATTAATTTCTTCTTTCCGCTTTTCCTTCGC
TTCATTGACCTCCGCTTNGNCTCGGGGTCCGTTTCCGGGCTTG

Sequence 1083

TCGACCNCGCGTCCGTGGAGGGCCCATCTGCCAGAGCCTGGAGTCTGCGAAGGCCGGGAC
CCGGTTCCCCGGCCACAGTGGGGGTGTGCAACCCGAGAGAACTGGGAAGTGCCGTCAG
AAGCGATAACTGACGACGTCTAATGTCTATCTGACCGCAGTCGCTGAAACCTCTACAAC
TAGTTGACCGTAACTGCCAGAGCCCTGCCCTGAATTCCTGTCTTACTCCCTCTTTAAGA
TTGCGTACCCACTGCAGAGTGCTGAAGACGGGGTAGCCACCGAGGTTGCAAATTCGTGAA
GAATCAGCATCATGTTTGGCAGCTGAGTATTGGAGCCAGGAGCCTGCCATGAGGTTTTGA
GAACAGAGTGCTGTTTATAGAGCTGGCAGCAGCATCTCAGCCCAAGAGAAGGTTATATTCC
CAGAGGATGTCAGTCCCAAGGACCAAGTAGCTGCCATCAGTTTGGATTCTGAAAACTAAC
TGGCATCAAACCTGGGTGTAGAAACATG

Sequence 1084

CGCGTCCGACTGTCGCTCTAAAAGAATGAAGGAAATAATAAAGTGATAGACAGGGAAGG
ATAGAAAAGACTTAACAATATACATATGTTCCGTCTTTGCTGTTTTGGAGAATGATGGAT
AAGTANGTGTTTCTGATTCTGAAGCATAGCTGAACAATTTAATTGTGGTTTACCATCTT
TTTGGTTCCCTCTTCAGTAATTAACCTATCGAAAATCTGTCCTAAATGTTTGGACTGGGG
CACAGTTCCCTCCATCGCTTTGGGAGAAAATCATTAAATATGGCATACTGCAGATTGGAGG
GCAGGACCACTGAGGGTGTCATAGACATTAGCTCTATGGAATTCTGCTAGCAATTTCCAA
GTGACAGTGAGGAATTATGGATATATGTTTGAAGTCAATCAAGCTTCCTGAGTACCACAT
TCCCCAGCTACTTAGACACCGGGTTAAATATTAAGATGTCCTAGTTCAACAGCTTGAA
TTCCATTGATTGGAT

Sequence 1085

GACCCCGCGTCCGGCTTCTGGGTTGAAAGAACCCAGTTCAGGAGTTTCTGTTTTAGTT
TGAGATCTTATAGGCCTGTCTCATCAGGTTGGTGTCAGCCCAGCTAGGATTAGGCAGAAT
TGGGTGGGGGCTGTAGTGCATCTTTGGCACAGCATGTACCTGTCTGACTAATTCTCTGTC
TTTTCTTCTGTTGCAATTCATGGGTCTTAGCATCTTCTGAATGGTGTTTAGTAGGTCA
TCCTGTTGATTTCTGCTAGGGAGTAGCATACTCTGGCTCTGTACCATTGGCCAAGGGAC
TTAAGGATAGGTGAAGGGCTGCAGTTTTGTTAAATGGAACAATATGAAGAGATGGCATTG
TAAAAAACTTNTGNCAACTNAA

Sequence 1086

TGTCGCCCCGCGTCCGATCAAATCTTGATGAAGGATTGTAGATTTTTGCTTTTTCTTTT
GTTTTTAAACTTATTCCAATTGCTAAATTGGTAGTTTTTCAGTCTTTATAAATACAGGA
TTAAAAATATATACAGTTATATGAAATGTTTATTTTCTATGTGTGTCATATAGTTCA
ATATTATGCAATAAATTTGGTGTTTTAACTTAAACTATTTCTTATTGTAAGTGCAGAAT
GGATAGCTTGCTTTTAGTAGAAGCATTAGGTCGTATACTCAGATAATCTAATAGAAGGTC
AGATTTGATTCTGCATAAGAAAGTAGAGCCCAAGTGCTGCAGAAATGGAGAAGAAAGCA
GGGGCAAGGGAGCAGATGGCATTAAAGGAAGAATGAAGTTTTTGAAGGTTGGGGATGGACG
AAAAGGGTGTTTCTCATGGAGAGGGGATGCTTTAGCAAAGGCTCAAACATTGGGGCATAT
TAGGCAAGAGCCAAGAAACAGTTTGAAGGGGAACATCAGAGGAAATAGGCCAAATTAAT
AGTAAATN

Sequence 1087

GGNGTCGACCNCGCGTCCGGAAATACTCAAATAATGCAACATTACTTCCCAGAAATGAAA
ATACATTGCATCTCTTATTGAAAGAGCCAACAGAGGCAATGAAAAATAAATGTACACATA
TGTGCACCCTTAATTTCTTATAATGAACCTTGAGAAATCAAGGCTTTAGAAAAATGCTGA
GAGACAAGAGCCTTCTGAGCAGCAACACTGGATGCAGGAAAAAAAATGGAGTAATAAGTG
TAAAGTTCTAGGGGAAAAAAATATCAGAACCTAGAATTCTAAATTTAACCAAACCTGTC
ATTAAGTAAATGAGAAAAAGTAAATTTCTTTTGAGAAACGCAGAGCCTAGAAAGGATTACT
AATCGGTAGGATCATCTTTTTTTGTTTGTGTTTGGNTTGGGGACAGACTCTCACCTCT
GTCACCCAGGCCTAGGTTTGCAAGTGAGCCCAGGATTGTGCCACTGCCCTCCAGCCTTGG

TABLE 1
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GGGTGACAGGAGCAAGGACTTCATCTCAAAAAAAAAAAAA

Sequence 1088

TCCCCCTGCCCCCAAGCTGAGGGAATAAACTCTGCCTGTCGGGTGCCCCACCAAGGGA
AATAAACATGGCCTAGCTGCCAAGTCATGCCTGTAGGGTGCTCTCTACTGGCAGTTTCTG
GGTGGTGCATACATCTAGTCTCCCTAGAAGAGCACAGTCCAGAATTGAGGAGGTACAGCA
GAAACAGACTGCAGGCAGAGAGAGGTCTCATAGAGCTTGGACAGGGCTAGGCACAGAAAG
AACAGGCAGCGTATCCAGAAGGGGGCAGGGAATGGGTGAAGAGGTTGTGCTCTAGGGCAG
AGCTGAGCTCTGATCTAGAAAGGACAGCAAAGATACCTGGAAGGCCTCCCGATTCTTGCG
TTGTTGGCGTCGCTCCCGAAGCCGGG

Sequence 1089

CGNTCCTTGGGTAAAAGCGTCCCAGAGACGGGAAGAAATATGGTATAAGCGAGAAGGCCT
CATAAATCTGGGCTGTTAAAAATCTAAGTTAAAAATATGTTTAAAGTCAGAAAAAAAAAAAA
AAAAAAAAAAAA

Sequence 1090

CGCGCCTGGTAAATTATATAAGCTTAAAAAACAAAAACAAAAACACTTGCTTTGAAAA
GAGTCTCTCAGCAGCAATTTTGTCTTGCCCCTACTTCCACAGTTCCTTTTCTTACCATT
TCACATCTGGATTACTACATTGGCCTCTTTGCTTAGACTCCCAATATTCATTTGCTTTCC
TTCACCCCATTTTATGGAGGACTGTGAGATCAATCTTTTAAAGATAAATTTATAATGTT
ACTACTGTTGCCTATTGGATTAGAGCCCTAGGGGTGCTTTTTGTAGTCTCACTGACAGCT
GACATTAGTGATTTTTACCCCTCTTCTTATTGCTACCCTGTGTTGATGGCCAGTTTCCAG
GTGGGCACCTGCTCCACTTGCTTTTCAT

Sequence 1091

GGGGTATGTGTGGTTCTTCCAGGAAAGTGCTGAAAATATCACCCAGGCCTCTGCGCCACG
CCCTGGGAGAGTACACTCCTGGGCTCACGCCTCTGCATTCCAAGGCTGACAGCTAGAAAT
ATACTTTGTAATAATACCAACAACTTATTCACAAATATTCCAACTATCTACCAGCTCCAAT
GAGCTTGCTGAGGATGGGTATGACCCAGTCTAAGGGGAAAGAATCTAAACACAAGTAA
ACCTGTTTAAAGGCCAGATCTCCAGATGGAGATCCAAGCAGATGGCGCCTAAGGTTTGCC
CTTGAAAACCTACCAAGGAAGCCACAGAGAGGGATCTTTGGACCTTCTGGAAAATGGTAAG
GCCCCAGGTAGATTATGGCTCCTCTGCCCTGGAGGCTGAGCCGCCCTCTGGTTACCTCAC
ATCTTCTGGTTTCTTCTGAGTGGGACTTGATCTCATTTCTGCATTACAGCAAGGNGGAA
CTGTCTGGCAAGAGCTTAAATTAGGACCTGNTGGTGGGGACCTTTAATAGCAGGTGGAG
GGTTTGAGATCCCNTGAGATGCCNAGATTAATTCAATAGGGGGGANGAAAGATTGGCCC
AATTCAAAAGNGCTTAAAAAAAAAATTTT

Sequence 1092

CGCGTCCGGTTCTTTGGTTGAGCTTCTTTGTATCAGTAACAAAAGGAAGCATCATTCACT
CTTTCTTTGTAACCTAATGTAAGTCTCTTTGTACATCCTATTACTTCAAATCATTGAAG
TGAATCCATTTTCACATCTGTTGGGAACAATCATCTAGCTTCTTAAATGACTCATCTTA
AAATATGAATTTTAGACTGCCTAAACATTCTGAGGGAGTACAGTGTGATATAGCAGAAAC
AACCAGGGGCTTAAGAAGGATCAAAATGAAAGGTTTTGTGAAGGATGTGCCAGAGACTGCT
CTCTGTTACCAAAACCACATTCTTCTTCTTCTTCTGTCATAGAGCCAGACTAGATTTCC
AAGCTTTCTTGAATTGAGCTCTCAGAGTTCTCGTCATTAGAATGTGAATGATAGGCCG
GGCGCAGTGGCTCATGCCTGAGATCCCAACACTTTNAGAGGCCAAGGTGGGTGGATCACT
TGAGGTCCAGAGTTCNAGACCAGTCTGGCCAACGTGGTGAA

Sequence 1093

CGCCCCGCGTCCGATAAAACCTGGATTTGATTTCTTTTTATGAAANGTTTCATATGAATGT
AACTTGATTTTTTACTATTATAATCTAGATAATATGATATAAGAGGGCTAAGAATTTTTA
AATTGAATCATATATATGATATAATTTGATCCTTCTTGATCTTGAAGTTTTGTACTTGG
GATTTCTGGACTGATAAATGAATCATCACATTCTTCTGGTAAATATTTTCTTGGAGCTCT
GTGTCAACTTTGATCCTTTGTCTCCAGGAAGGTGTGACCTCTCCTTGCCTGCATACCT
CAAGGCCAGGGGAATATGCCTCAGTGATGCATTATCTTTGTATATCAGGCCGCATGATT
CCCAACTTTCTGCCACACTTAAATTACGTTCTCCATTTCACTTTTGTCTTTCTGTCTA

TABLE 1
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AAGTTCAGTCAAAGAGTATCAAAAAATTATGTTTCAGCTAGACTGGTGTAAATGTATAAGT
TTTTGTATCTTGTATTAGAGGATTTCTAGCTTTTATTAGAGG

Sequence 1094

CCCCCGCTCCGATCCCTAGATGACATAACAGCCTTACAAAAGGACAGGGAGGAGTGTCT
GTTCTACTCTCACATAGCGGAGGAAAGTTAGAGCCTCTCAGTCTCTGTTTATGAGGACT
CATTAACTCTCAAATAATTGATGCATTTTTCATACATTAGGGTCTCTGTCCATGTGTCTTC
CTGATATTGTTATAGAAATGGCTTCAGGCTGCTGGTAACAGATGCTGCGGAAAAAGAATG
CCTTAAACAAAGCCAGGCGCGGTGACTCACGCCTGTGATCCCAGCACTTTGGGAGGCTGG
GGTGGGAAGGATCACTTGAGCCTAGGAGTTAGACACCTACCCAGCCTGGGCAACACGGTG
AGACCTCGTCTCTACAAGAAACAAATAATTGGCTAGATGTCGTGGCGCACAAAGCTTGTGG
TCTCGGCTACTTAGGGGGCTGAGGCGGGAGGATTATTTGAGCCTGGGGAGGTCAAACTG
CGGTGGGCTGGGATTGCGCTACTGCACTCCGGGCTGGGAGACCGAGTANGACCCTGCCTT
AAAAAAAAAAAAAAAAAAAA

Sequence 1095

AGTCGCCCCGCTCCGCTCATACCCAGTGAATCTTCAACAGAATCTCTTAAAGATCTCCA
GGAAGTATAAGCTCTCATTAAATGTTTGAGTTAGAAGAACTTATTCTGGGCCTTTAATTTG
TTGCATGTGCTGTACTTAAAGCATCCCAGATAATTTTAGCTTATATTTTCATAGTGTTA
TACAGAGCTTGAATTGGAATGGTCCTTTCCTTGCCTCAGTACTTCTTCCATAATC
TTTCTGCCATAACCATTATTTTGCACCATTTCTTAAACACTTATGTGGCAGGCATTA
TGCTAGACTGTAATATGTTTTTTTAAATCCAGTTGAAGTGGATGTGGGAAGGTATTAGA
AAGTAGAAGAAAGTATAGTCTAAATAGAGAGGAAAGAAAGGAAGAGAAAAGTGGGATAT
TTCAAACCATTTGCGCAGAGGTAGAATGAAATTCGCCAGAATGGGAATCTCCGTATTTCT
TTTACAAT

Sequence 1096

GTNGCCCCGCTCCGAGTNAACAGTGGTAGTNAAATTCAAGGGTTGGTAAGTTTTTCCATA
GAAGGCCAGATGGTAAATATTGTAGGCTTGCAGACCATGTGGGCTCCACGACTCAACTCT
GCCACAGTAGTTTGAAAGCAGCCACAAACAGCCTTGGTGTGACTTTGTTCCAGTAACTT
TCTTTATAGAATTGGGAGAAAATATTTGCAAACAATGCATTCAACAATGGCCTGATGTCCA
GAATTCATGAGGAACCTTAAAAAACTCAACAACAAAAATCACCAATAACATTTAAAAAGTG
GGCAAAAGATATGAATAGTCATTTTTTCAAAAGAAAGACATACCGAATGGCCAACAAGCATA
TGAAAAAATACTCAACATCTCTAGGCTTTCAGAGGCATGCNAANTAAAACCNCCATTNGA
TATTATNTTACNNGANCCCNAAATGGGTTTTTTTTTAAAAGGCCAAA

Sequence 1097

CCCCNCGCGTCCGTTNAAAGTGTGCTTTGGAAAAGGGAAAAAGTCCTAAGTAGATATAAAA
CCCTAACTAAGGAAGAAAGCAGGTAGCAGTGGTGGTCCAAGAGACCGTGTAGTGGATGCA
AGGACCGCTCGTATTTTACACGCTATATTTTACAGCAAAGGGTGGCCCATCTGGCAGGAAGA
TGGGGACATATGTCACATATAGAGCAGTTAAGGAACTAGGGAAAGTGAAGACTCAGAAG
ACCTGTCTTTGACCTGGTATGTTCTATCTCTACAGAACCTAATATGGCTTATACATACTG
CCACAGAAAGGACTGAGGTAGACAGTGGCAAAGACTTCTAGGAGTTGAACCCCTGAAAT
TACATAAGGAGTAGGACCCCAACAGAATTCTGTCTTTGTAGGCTGCTGACTGCAGAAGAA
ACGGTGTAGCGGAGGCAGGGGGAAGAGGAGTCAGNANAGTACACTGGGAAGGAAGAAACG
GGTTCTTTTCTCTT

Sequence 1098

TCGCCCCTGGGCCCTCCTAACCAACCAGGGGAGGGGAGAAGGACCCAATTCTTTTCTTTT
GGTGACAGTAGCCTGGACCCGTTATGGACAGAGGCCAAAGGAAGATAACAGTGTGGTGTC
CAGAGATGAAACCAAGTGGTTGATGGGCAGTTCTTTGAGCAACCTTGTTTATGAGCCTAT
TGATATGCTATAGAGGCATCCAATACTATTGACTAATTTAAATCTTATTCAGTGAG
TCAACACTCTAAATAAGCAATGGAGATGGTTCATTTCATTTTTTTGCAAGTATCATTTTT
ATAAACATAAATTTCTGAGATTTTTGTTTTCATCTTAGCCTCTGTGGAGCTGCTTCGTG
GTTATGATAAGTGCTGTGTGATGCTCACCTTGGGAGGTCTGCGACATATATTGAAGTCAT
CTCTAACCTGAAGTACTGACAGACTTTCTGGAAGAAAAGGCTTGTAGGAGGAACTTCAG

TABLE 1
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AATTCTATTAAATGGTGTAATGATGAAATTATAGTTGATATATGCTAGAGCATCAGTGC
TGGGTATTTTAGAAGGGATGGA

Sequence 1099

CGGGCCTGTTCTAGAGCCTCATTGGAGACATTGACAATGCCATGAGGACCTTCCTCAAC
TACTACACTGTATGGAAGCAGTTTGGGGGGCTCCCGGAATTCTACAACATTCTCAGGGA
TACACAGTGGAGAAGCGAGAGGGCTACCCACTTCGGCCAGAAGTTATTGAAAGCGCAATG
TACCTCTACCGTGCCACGGGGGATCCACCCTCCTAGAACTCGGAAGAGATGCTGTGGAA
TCCATTGAAAAAATCAGCAAGGTGGAGTGCAGATTGCAACAAAAGATCGCTTTGGCTGC
TTTGTGAAGAATAGATTGAAAGGGTCAAAGGTGAGAGCCATCTCACATCCATGCAGGAAC
CAAGCAGGCAAGATATAAATATGAAAGTAGAAGAAAATAGTCTGGAAGAAAATCCC

Sequence 1100

CGCGTCCGGGAGTGACCCCCAAGATCTAACAGCTGTTTCAGAGCTGCTCATTTTAGAGTG
ATTGGTAGGGAGTTGGTGGCTCAGAGGTCCTAATCAGAATGTGTCCTGGGTTCTGAATGA
CTAGCAGACTATCATTAAACCAATAAATTATGGGATTTTGTCTTAATTATATACATATAC
ATATACACACATACACATACATATGTGTATATATCCCTAAAACCTTAATAAAGC
TCAAATAATAAAATCAGATTTCTTAAGTATTCCAATTCCTTTAAATGTAATCAGATT
TTATAATTCTTTTGTTCAAAACGTCCATTGGCTCCCATTTCACTTAAATCAAAGCTAG
TTTTTACAATAAGCTAAGATAGCAAACATTATTATCTATTTACTTATGAGTTACTTATGT
AACTCAAGCATCCAATAACACTGTAGGGTGCTCAATAAAATAGTTGCTGAATGGATAACT
TTC

Sequence 1101

TGTTTTACGACAGAGCTTAGTGACGCCNGTTCTTGATGGCTGTGCAATGCTTTCCTTTTA
AGAGTGGAGTTAGCCTCGTCATAAAGCGTGTTTTGAGTCTGTTGCAACGGGTCAACAAC
GAAGGGAAGTTTCAGGCAGATCTTGATGCCTGGCCCTGGTGGCTGCTTTCATTTCTTC
CAGTATCAGTGCTAAACAGGAATGAACATGTTCAAGCCCCGTCTACCCACCTCTGGCAT
CTTCGCCCTAACTCTGCCCTAGAAGACCTTTCCTTCCGTATCGTCAAGAAAACCTGAAGTT
GCTGTTTCACTCCTTCTCCACCCAGAACTTCGCTGCATCTTCTGGATCCCTAGCTCC
TTGCACCCATGATCCTGTCTCCTTCCCTCAGCCCCGGCTTCTGGCTGAGCAGCCTGCACTTG
CTGTCTTCACTCCTACACGCTGCCCCCACTCCTACACGCTGCCCCCTGCGTGCTTNTCACT
TCTCTACCCTTCC

Sequence 1102

GTCCGTATCCTATCTTCAAATTTTTTAAATATGTTCAAATATCTGGAGGGTGAGAAGTT
ACCAAGTTTGATGTTTTGTTGACTCACCATCTTTATTTCTGTATATGTAGTAGCTGG
CAATTGCATATATTTTCTTGATTAACATATTAGAGACTGCTTCCATCATCTTATGTAAC
CTGGAAACAAGCTGAAACTAGTCTTTTCTGAAGAACCGTGATCAGTGTTAGATGTGCAT
CCCGTTTTGTATTCCCTCAGACTTTGAATACAGTCATTACTCTCTGGAAGAGAAATGTA
AGTATATTTTTTGTATCTGCAGTATGGTTAACATGTATTAATAATACACATATGCAGA
CTCACTAAAGTATCCCCAGTAATTAGTAAATTCCAAAT

Sequence 1103

ANTTGGGTACCCCCGGCCNGGCCAGNTGCGCGCGGGCGGGGCATGCTGCTCGTCCCCCGC
GCCCCCGGCCCGGACACTTGGCGGGTGCCACGAGGACCCGAGCAGCAGTGCAGTCCCC
CGGCGTTCTGGGCGTGTTCCGGCCCGCTGCGCGGACCTNNGCGGGAGTTGGGGCNTGGG
GGGCGGCNGCCGTTGGTNCGGACAGNCNGGGTGCGCACTTGGGCCCCCNTGNCCATGGCN
GCAAAGGTGGACCTGAGCACCTCCACCGACTGGAAGGAGGCGAAATCCTTTCTGAAGGGC
CTGAGTGACAAGCAGCGGGAGGAACATTACTTNTGCAAGGACTTTNTCAGGCTGAANAAG
ATCCCNACATGGAAGGANATGGCGAAAGGGGTGGCTGT

Sequence 1104

TGCCNCGCGTCCGAGCATCTCAGGTAACAATTTGAGCATAACTTTAACCATAACTTATGA
TAGCATAATAACATTCATTAGTAATTCAGTAGCCGTATGTGCCAGGCTGTGTTAGGTGCT
TTATATATTGTTTAAATTTTAAAACTTGTGGAGTGTACAGATTGGTAAGGTGACATTGT
ATCACAAAGCTAGTCTTTGAGTCCAAAGTTTTGTGGTTTTATGTTATGATATACTTTTAT

TABLE 1
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CATGGAATTGTCTTATTAATGTTTTGCCAGTGGTTCTTAAAGTGTGTTTCTGACACCAG
TAGCATTGACTTCACCTAGAAACCTGTTAGAAATACAAATTATTTGGCCCCACCCAACAC
TTGAGTCACAACTTTGCAGATGGGGCTCAATCTGTTTTAACAAGCGCTTCATGTAATTT
TGATGCAGGCCTAAGTTTTTGAGCCCTGCAGTATGCATTTCTATTTTAAAGCAAAGATCT
TGGTCTTTCTTTTTGGACATTGTAGAAATAACATGAACCTGGTTTTTGGTTTGGNNTTG
NTTTGGTTTGGT

Sequence 1105

ACGCGTCCGCTCTGGTCAAGCAGGCGGTACTTCTCCTTGGATGTCTCAGCCACAGTGCCT
ATCAGGGTACTGAGGGAGAGCACACATGGCCCGAGGCCCTNGGAGCCCTCGGAGGCTGAG
TCAAAAGAGTCTCCCTCGAATTGGTGGGCCTTTAGAAGACTTGGCTTCTTCACTGGAGAG
CTATAAAGTAAACACCACACTGAGGGCCCTCGTCCCAGGAAGGCCTTCAGAGCATTTTCA
TTTCTGAACACGTCCCTCATCTTTCAAGATTTTCTGGTCTCTAAAGCTGAGAACTAC
AAGCACTGAAATGAGATGAGTTTTGATAAGGATGGTAATGAAGCACAAAAGCGTTATTCA
CATTACTCACTGACTTTAATATAATTTTGAATATTTTCACTTTTGAAAAACAAAATAG
CCTGGGCGACAAGANTGAGACTCCATCTCAAAGGTAAAANAAATTTAANCTGGGTGCCNG
CCGCTTGACTATGTCTAGAGAAAAAACTTCCACA

Sequence 1106

GACCCANAGAAAAGNGCCAAAGGGCATGTCAAGCAATTGAAGTTAAGCTCATGTTTTTA
AAGATCCGTTTATTGAGATGATTTTGAAATGCTCCTTACCATTATAATTTAAAAATAA
AGTTTAAACAATGGTTTAAATTCANAATGGATTAAAATGGAGTTGGGGGTGGAAAGTAGAG
CCATTCTTAGTAAATATAAATAACTGAAAAGTTCTTCTGAGGAGACTATGTACCGAAGTT
ATCATTGCATCTTTCAGTATAGGCAGATCTCTCCCTCATATAACCGGATGTTTCTTGGCG
CTTGGAATATCAGATAAAGGTAAAGTTTAAAGAACTTCTCTAGCGGGGGATTTAGGGAAC
TTCTTAAACCTAGAGTTAAAGCTGTTGCGTGTTGTTGTGTTATTTTAGACCAATCAA
CTTCATAGGCTAGACTAGTCTAGA

Sequence 1107

ACGCGTCCGAAAATTCACAGGGTGTGTTGGCACACGCCTGTAATGCCAGCTACTCAGGTG
GCTGAGGCATAAGAATTGCTTGAGCCTGGGAGGCAGAGATTGCACTGAGCCGAGATCGCG
CCACTATACTCCAGCCTGGGCAACANACATCCTGTCTCAAATAAATTAATTAACATTA
TGTTTAAAGAAGAAGTCTAAATAAGATTATGCTGCCCTCCCTCAGATAATGAGGGAAC
CTGGGGTACTTCTGGGCTACTCTGGGGGACAAAGTATAACTATTCAAATGGCAAGTTGAA
TTAGTACAGTCTAGGAGCCTTGAGATGGCTTCTTGAAAGAGGTAGAACCTGAAATTCCTC
CTTCCTTGAGGGACGGNCAGGATTTGGCCAGATGGAAAGGCAAGTGGAAGGCTTTCAGG
GACAAGCAATGTAANCAGANCCTAGAAATGG

Sequence 1108

TCGACCCCGCGTCCGGNGTAATTCTAGGGGAAATNATATTTCTGAACAACAATGTTGGTT
TGTGCAGGAAAATCACCAAAGAACATGACTAGAAAGTGATAGCTACAGTTTCCCTCTTT
TAAATGGGAATAGCAAAACATATAAAGAATATTGATAGGCCGGGTGCGGTGGCTCACGCC
TGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCAGATCAAGAGGTGAGGAGATCGAGAC
CATCATGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATACAAAAAATTAGCCGGGC
GTGGTGGTGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATGGCGTGA
ATCCGGGAGGTGGAGCTTGACGTGAGCCGAGATCGCGCCACTGCACTCCAGCCTGGGTGA
CAGAGCGAGAGACTCTGCCTCAAACAAAAAAGNNAANAAAAA

Sequence 1109

CCGTCTCTGGCTTGGCCAGGTTTAAATTAATAAAAATGAAGATGAAAATAAGTTGTCAGA
TTTAGGATGTATTTAGAAACCCAACCTGATAATTTGCCAACTAATTGGATGCAGAGAGTA
AGAGGGAGACTCAAGAACACCTCTAAGATTTTACCCTGATCAATGGGATAGGTGAAAGT
ACATTAATGGAGATTGAGAATCCTGGTGGAGGTACAAGTTTAGGGGTACTGAAGAGTGCT
TTTGGACATGTGAATCTTAGAAGCCTACTAGATTCTCCAAATGGAGACATAAAACATAA
TTGAATACAAAGTCAGGAGTTCAGGAGAGGGCTGAGCTAAAGATACAAATTTGATAGAC
ATGAGCATTTAAAAAACTGCATGAAAATACTAAAGATAGGCTGTCCTGCCTATGGAAT

TABLE 1
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AGCCATTCTTTGATCCCTTTACTTTCTTAATAAACTTGGTTTCACCTTACTCTATGGACT
TCCCCCAAATTCTTTCTTGTGTGAGGTCCAAAACTCTCTGTTGGGGTCTAGATCAGACC
CTTTTCAAGTACATCTTCTGATGAACCACAAANGGATTATACTAAAGAGACCCCCCACC

Sequence 1110

CCGNAATTTGCTTATTCTAATTGAGACACANTGGTGGGGAGTGGGGGTGCGGGGACTACA
CAGGTGCATTTTCTGAACATTTATAAAATGAAAAAGATGGAGGCTTGGCTAGAATGGTTA
ATCCCCTTTTCTTCTCTAATTCTATGACAATTTTTTAAAAAACCAACACAACCAAA
ATAAGAGTGGACAGTTGAGAATTACCTTTAGGTTCCCATGACCCTGAAGACTGTATTTGG
CCTTGGATCCATTAAAAA

Sequence 1111

CCCACGCGTCCGCGGCCATTTCTGTATCCCCCTGCCTGGGTTTGCTGCCCTTTATGCTCC
TACCTCACCAGGTACAAGGAACATGAAGATGGCTATATGCGGCTGCAGCTGGTTCGCTAC
GAGAGTGTAGAGCTGACACAGCAACTGCTGCGGCAACCACAAGAGGGATCGGGCCTGGGA
ACGTCGCTGAACGAGAGCAGCCTGCAGGGCATTATTCTAGAAACAGTGCCAGGGGAGCCA
GGACGTAAGGAAGAGGAAGAGGAGGGCAAGGGTAGCGAAGGGACAGCCCTCTCAGCCTCT
CAGGACAACCCAGTTCTGTCTATCCACGTGGTGAATCAGACCAATGCCAAGGCCAGCAA
GAGATTGTCTACTATGTGCTGTCTGAAGCCCCAGGGGAGCCTCCCCAGCCCTGAGCCA
CCTTCAGGGGGCATCATGGAAAAGCTTCAAGGAATAGCTGAGGAGCCAGAGATCCAGATG
GTTTGAAGGCCGAGAGCCAGACCATTTCTTCCCAGGTCTGAAAGTTTGAGCCAGGCAAG
TGCGAGTGCCCTAGTGGGCAGCCGTTGCCAATGGATGCC

Sequence 1112

CCCCCGCGTCCGTAATTTTAAAGAACCTTGTTATTAGAAAATCTCAGCCTAATACAATCT
GAAGTTAAGAGTTTTAGCAGCATTGTTTTCTAAGTAGATTTAGCTATAGATTTCTTCT
GGCCAAACAAGGAAGAGTATATGCCCTTGTAATGAGTCTTGTTTTGTTATTTAAATAGT
CAGTCAAACGTAGAAATCAGTATACGTAAAATAAAATGCATGAGACTATTAAATCTTTT
CATATACTCTACAAATAAAATGAAATCTGTGTGTGGTCCTGGTTGACTGGGCATCTAAAG
GGAATCAGAAAAGAGATTGTGAAAAGTTATATATATATCCTCTTCTTATTTTAGTTTTG
CTTTTTCTATTTTCCATAATTAAGTGCCGTTTACAAAGTGGCATCAAAAAATTGAAGCA
GGCCAGGCATGGTGGCTCATGCCTGTGGTCCCAGCAGTTTGGGAGGCTGAGGGCAGGTGG
ATCACTTGAGATCGGGGGTTCGTGACCAGCCTGGCCAACATGGTGAAAGCCCATCTCTAC
TGGAATATAAAAATTAGCCCGCGTGGTGGCATGTGCCTGTGGTGCAGCTACTTGGGA
GGCTAAGACAGGAGAATTGCTTGGGCCCTGGGAGGGGGAGTTCAANNNGNCCTGGANCGN
CCCCTGNNCTCNANCCCTGGCAACCANTGNNGACACCNCTTAAAAA

Sequence 1113

TCGACCCCGCGTCCGGTTTTTGTCCCAGCAGTGGCATTAAATTAAGTACTTTAAGAC
ATGGAATTGCTGGAGGCTTGAAACTTGAGTGCAATTTCCCTAGTACGACCTCCAAGGAG
AATAGAGCAAAACAGTGGTAGGAAAACTCTCAAAATTTACCCAATTGTATGTTTTCTA
CATTGTCAAGTATCTAGTTTTATATAGTTAATATGTACTTCTAAAATTTCTGACAGTGNTT
GGTGTATAAAACAGACCAAGCTCAAGATGTAAAGAAGATTGAGAAATTCACANTCAACT
AATGCGACTTATGGTAGCCAAGGAAGCCCGCAATGTTACCATGGAACTGAGTGAATGGT
TTGAAATGAAGACTTTGTCGTGACTTAGGAAAGTAAATATCTTTGAATTAGAGAAAGTG
TTGGGACAGAAAGTACTTTATGTAACTAAGTGGGCTGTTCAGAAGCTTAGAGGTCAATTT
TTGTAATTTNTTTTAATTACTTTAGAAGAGCTAGGGATGCAAATGTTTTCAATTTGGA
AAGCCTTTATTTACTTTTTGGGAAA

Sequence 1114

TCGACCCCGCGTCCGATTCTTCTTCATATATTATGTCAGAAGAGTTTGAGAAGAAATGG
TATTAATTTCTTTAAATGTTAGGTTGACTCACCAGTTAATGCAGCTATTTGGTCATAA
ATGTTTCTTTGTTAATCACTTTCGATTACTAATCAATCTGCTAGGTTATAGGTCTATTC
AGATTTCTCTTTCTTCTGAGCCACTTTGGTAGTTTGTGTCTTTCTAGTGATTCGTCCA
TTTCATCCAGGACAGCTAATTTGTTGTTAGACAGTTGTTACAGTATACTCCTGTAATCC

TABLE 1
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TTTTGTATTTCTGTAAAGTTGGTAGTAATGGCTCTGCTTTCATTTATTATTTTAATAATT
AGTCTTCCATCTTTTGCTCAGTCAATATAGTGAAAGGCTTGATCTTCAAATAATCTATG
TTTATTCATTCTACTGCTCTCCAACTTCTATTTTATTGATTTATGCTCTAATTATGCTC
TCTATTATTTCTTTCATACTGCTAGCTTTGGATTAGGCTTATTTTGNCTTCTTC

Sequence 1115

GCCCCGCGTCCGGGATGACTAATGAAAGCAATNAGCTTGAACATTTAGAAAAAATTCATA
TATGATCTAAATTTTTATATTATCATTTCTGTGCCTTCTAATTCCTGCATCCTGTTCAAA
ACATCTTTCCAGACATTAACCTACACATTGTATAAACCGACCAAAATGATTTCCCTAAAG
TTCATGCAAAAAAAAAAAAAACAACCTAATTTCTGTTAATATAAAAGAAACTTCAGTT
TACTGACCGTGAAACAGACTATGTAAGTACATCCAGGGTAAAGTAAAGACTTTTAAATA
TTGGTCATTAAAGGACAGGAGCTAAGCTAGCAAAGCAAAACATCTTTAGCACTTTGCAGA
TCTCAAGCAGTTAACCAGGCTCTGATTCCCTTCCACTGTTTTATGAATTAATTCCAGTTC
TTTTCATGTATCTTTGAACCTAAGATTATGAAGTAATTTCCCTATTAGGGACTAGAATGA
CTTCAGTTTTTTTCATTTGATAAAAATCAGAACTGCTACCTTTCCCTTTTTTAATGATGCA
AAATGTAGATGAGTGCATTAAGGGTTGTAAGGATCTTTATCATTTTATGNCATTATTGA
AAATTGAAATGTTTCATTCTTTTAAATGGTT

Sequence 1116

CNGCTTTCTGCTCTTCCCTTTNAAGTTGATACCCTTCTTTTTCTTGTCATTTTGCATTGCC
TGGGACCTCCAGAATAATGTTTCATGAAGTAGCATGTATCCATATCTGGTTCTTGACTTT
TTCATCATTATAAATGTTTTCTATGGGTTACTTATCAGTTTAAAGATGCTTAATTCCTAG
ATGAACCTAAGAGTGTTTATTACATGTTGAGATTTATGGTATGCTTTTTCTTCCCTCAAGAT
AATGCATTTTTTGATTATCTGTAAATGTGATAGGTTATCCATTTGTGTATTTCAATCA
TTGAACAACCTTGATTTTTTTGGATAAACTCTATTTGGTCATTATGCATCATTCTATAA
ACCCTGCTGAATTTTTTCATTTGCCAACATCTTATTTAGATTCTTTAATCTGTGTCCAA
CAATGAGATTTGTTTTCTTTTGCAATTTGTTTTGAATTTTTGGTATCAGAGCTATACTAA
CCTTATAATGGAAAATACATATTTCTCAAACTTTTACACTGATATATTATAGTATTTTT
TTATAATTTGAAAAATCTTGTCAGTATCTGTATTAAGGCCCTNCATTTTCAAGTTCTGCTATT
TCATATTGCCCTAAGGTGGCTATTTGGCTCTTTAAGGACCCCGATTTTGATTTTGTCTATT
TTAAAAATAAACCCCATTTATGCTATAAAAAAAA

Sequence 1117

GCCTTTTATGGTGATGGAATATGTCTCAGGAGGAGAGCTATTTGATTATATCTGTAAGAA
TGGAAGGGTAAGCTGTTCTGCTTTAATTCTGTATGTATTTGTNNCTNGNCCTTTATCCT
TTACTAGCATCAAAATGTCAGCAACCAATTTTAAAGAGGTCTATTTAATAACCAGTTCCCT
TAGTCATATATTTGTTTGAATCATAACTATGTAGAAGTAAAGGATCTTAAAGATTA
TCTCCTTAGCCTGTTTATACAGATGTGGATACTGAGCCTCGCGGCTTATATGATTGCTCA
CAGTAACGTGATTTATTAATGACGGAATTGGCTTGAGCCCCAGAACTCATAATCCTCAG
ACTTATGCTTCCAGGGTATACAAATACTTTGAATATGTATCTTAATGTAATTAATCGTAC
CAAATATATTATTACT

Sequence 1118

GCGTCCGTTGTCATCTATTTACTTTACATATGTCATAAACCTAACACTACATGGTCATTT
TTGTTTAAACAGTCAATTACCTTTTAAAGGGATTTGAATAATAAGTCAAAATCTAATACA
TTAACTGTGTAGTTAGCATTTCTGGTGCTCTTCTTTCTTTCTGTAGATCCATACTTCCA
TCTGGCATTATTTTCTACTGCCAGAAGGACTTCTTTAACATTTCTTGATGTAGATC
TGCTGGTGATGAATCTTTCAGCTTTTGAATTTCTTTGTCTTTGAAAGGTATTTTCCCT
GAGTATAGGTTAATAGCTTTTTCTTTTCACTACTCTAAAGATGTTGCTCCAGGCCAGGCG
CGGTGGCTCACTCCTGTAATCCCAGCACTTTGGGAGTCTTGAGGTGGGCAGAACACTTGA
GGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCCGTGCTTCTAAACATAT
TAAAGAAAAAAAAGA

Sequence 1119

NCGTGACATGCTGGCTGCTAGTNAGCTCCCCATGATTGTCAGCTTCCGAGCCCTCACTA
GAAGCAGATACCACCCACCACCATGTTTCTTTAAAGCCTGCAGAACTGNGAACCAATT

TABLE 1
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AAAACTCTTTTCTTTATAAATTATCCAGCCTCAAGTATTTATAGCAACACAATAATGGCC
TAACACAACCTACAACCTCTATATGTATTTGTGTGATTTAAAACATGCAGGAAATAAC
ACAGAATCCAAGGCACCCAAAACCTATTAATAAATGGAATCAAGAATTCATATGCCATTA
TGAAATTAGCCAGTCCTAAAATCTGACCTCTCTGCATTTTCACATTATTCTCCTCTCTCT
ATCCCTGCCTTCCTCCCTCCCTTCTCCAACCTGTCAGAATTGTCCTGTAATCAAACATGT
TCACATCACAGCTTTTCATTTTCTATTTCCAATCAATTGACCAGTCTAGCCAAGTAGCAT
CCTGGATCCCGTATTACATATTCTAGGACAGGAAGCCAGATTTT

Sequence 1120

AGCTCTTTAGCAGGAGACAATTCTTAAACTTAAATTAAACTGAAAAAGCCACAGAAAAAA
GGGTTTGACACCTTAAAGCCAGTGTCCAAATGAACGCTACGGTTGNCCTCATAGGTGTGT
TATGAATGTTTACCCTGACCTCCTAGAAGAAAAGGAAAAAGAAAGGAAAGAGAGAGGGAG
AAGGTGAGGGAAGGGGGGAAGAAAAGAAAGGAGAGAAAAAGACAGAGAAAAAACAGGG
AGGGAGGAAGCTGGGGAAGGAAAAAGACCATTTGCTGACTCCGTTGTTTTATTTCCAGA
ATGATTCAATACCTCAAGAAGATTTCACTCCAGAAGTGTACAGAGTTTTCTCAACAACC
TTTGCCCTCGACCTGAAATTGATAACATCTTTTCAGAATTGTAAGAGTACACATTTTAAG
CCATATCTTTTTAGCTTGCATTGATTCTCAGGTGGCTAGAGCAGGACTTGGAGTGGTAA
TTGGAGATGGAAGACATCATACACTGTGTCTAAA

Sequence 1121

CGGCCGAGGTACTATAATGGTCCCCATCTTAATTTGAAAGCGTTTGAGAATCTTTTAGGA
CANGCACTGACGAAGGCACTNGAAGACTCCAGCTTCCTGAAAAGAAAGTGGCAGGGACAGT
GGCTACGGTGACATCTGGTGTCTGAACGTGGAGAATTTCTTGCTCCTCCAAGGCACCAT
AAGAGAGAAGATTCTTTGAAAGCTTGGACTCTTTGGGCTCGAGGTCATTGACAAGCTGC
TCCTCTGATATCACGTTGAGAGGGGGGCGTGAAAGTTTTGAAAGTGACACAGATTCCGGAA
TTTACATTCAAGATGCAGGATTATAATAAAGATGATATGTCCGTATCGAAGGATTTCCGGC
TGTTGAGCCAAAGACTGCGTTACCCTTCAATCGTTTTTTACCCAACAAAAGTAGACAGCC
ATCCTATGTACCTGCCCG

Sequence 1122

CCCTTTGAGCGGCCNTNCGGGCTTNTACGCGGGGGCAGCGGGAAGCTCGCAGCAGCTGG
GGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGATACACCCAACTGGGAGAT
GAGGAAACAGCAACCCAGAGAGGAGAACTAACCCACACAGGATCATTTCCGGAAGGAGCA
AGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTACTGCAGCTTGAAGGAGCCA
ACCATGGATTGTGAGGCGTGTGAAGGAATATTTCTCCTGGCTCTACTATCAATACCAAATC
ATTAGCTGTGTGCTGTTTTAGAGCCCTGGGAGCGATCTATGTTTAAACCATCTTACTA
ACCATATTGCTATGGTGGTATACACTGCCTATGTCTTTATTCCAATCCACATTCGCGTG
GCTTGGGAATTTTTCTCAAAAATAT

Sequence 1123

CCCTTTGAGCGGCCGTNCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACC
ACTTTATAGAGGGTGTAATAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGCTTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGT
TCTGGGAGAGGGACCAGATTGGGG

Sequence 1124

CCCTTATTTTNGGCNTTNGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTAT
AGAGGGTGTAATAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAACTGCA
AAAAATTGCCAAAATGCNACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTT
GGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGG
TTTGGAGTCTGGAAGCCTNATCCCTTCANCATCAAGCTGGAATGGGGAATGAAGAATGGA

TABLE 1
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NATGTGGTGCCCACTAGGCTACTGNTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTA
TTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTA

Sequence 1125

CCCTTANCGTGNTCNCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCAC
TNTATAGAGGGTGGGAAAATAAACCANAAATCAAGGGAGAAAGAAAAGATGAAAGACAAA
CTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCAT
GTCTTGGCATTCCCTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAG
AGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCGTCAAGCTGGAATGGGGAATGAAGA
ATAGAGATGTGGTGCCCACTANGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGT
TGGTATTCAAAATATGTAATGGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATTGTAAACACCTGAATTG

Sequence 1126

CCCTTTCGAGCGCGCCGCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTNNGGACTTGCG
ACAGTTCACCTTTTACTCTCATTGGTAAAATCTCCTTTTAATTATTAATAATTTGATA
AATTTATTAATTAAGTCTTTNATTCTTTTGTAAATCAGAAGAGGACATTAATGTTGCGTG
TCTTGACTGTCTTTTTTGCTTTGTAGATTTATTTTGTGCTAAATGAGAACGATATGCATG
TTTGTGNTTGATTTTTCCAGAAGCAGTTACTTTAATTCTTTTTTTAAGNGCTGATTTTGT
TTTTGCTTTAGGCATTAGTTTCTTCTTCTTTATAGNTTTTTCAAAATCAATTAATTCCT
TTATTTGTTTTGAAAGAAGTAAATTTGGGGTAATTTTTCTTATCACGCCCAATATGAAG
AGTTAAAAAATTACCACTGATTGCATTTCTTACTTAATTTTGCAAATCGATTTTACTT
CATCAAAAAAAGAATTTAANAATTAATTTACCTTGTTGAGGTCTTGGAATTTNCACGCC
CTCTAAGACGAAGAGCCACTTTTACTCTGCGTATCTAATAAAAAATTCTTTGGCTTTTTT
GCTT

Sequence 1127

CCCTTAGCGTGGTCGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCAC
TTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAAA
CTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCAT
GTCTTGGCATTCCCTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAG
AGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGA
ATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGT
TGGTATTCAAAATATGTAATGACTGGTATGGCAA

Sequence 1128

CCCTTAGCGTGGTCGCGGCCGAGGTACATGCTANAAAACATTANCACAGATACGACAGAG
TGTGGTTTTTTTTAGAAATGGGTAATTTCTCTCTCCAGTATCCTTTCACTTGTATGAGA
TATTTCTCCTCTCCTGTTTTCACAAACCAAGAAATCCCAGGTAGGCCAATCCCAGAGGT
GCCATTTAGCAGTATGCAGCAGCCAGTTTCAGCATAACAAAACATGCCTTGGTAGTGGC
TCTCTCATGCAATAAAAGAAAGCTTAAGAAATCTTGTTGTAGGTGGATTAGGCAAGGC
TGCCATTGAGCTGGTATAAGCTAAAAGTAAAAATCAAAACGCTCAAGAAAACGGACACA
ATTTTGGGAATGATTAAAGATGTCTTTATAAAGTTTTTTCAAGACTTCATTCTAAATACA
CAGAATAAAAAATGGGTGTCAGCTCACTTGTAAGACACCAACCAGATTTTCCTTATACTG
TCTCAAAATTTAAAGATCAATTTCCCAGAAAGGTGTNCAATGCATCATAAAATGGCCCTT
TTTTGAGGATGGGAGAGGAAGGGTTGGGCAGGATGGAATATTAATTTGACATGGATAAA
CATGCCAAGACTGTTATCCAATCTAGATAATTTATATACATTTTGATGACTTAAGGAAAA
CAAAGCAATCATTTGGTGACAGCCTAAAAAGCNTGACCNATTTAACATACTTAGGAACT
TTTTTNGG

Sequence 1129

CGTTCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCCTTTATAGAGGGTGTAA
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AAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCTC
AGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTG
GAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCC

[illegible]

GAANCAGAAGAAGGGGGCGCCACNAGGCTACNGCNGAAAGGGAACCGAAAAACCCCNCA
CCAANNAGGNATNCAAAAAANNGGAAACGGACCGGGNCANGGCAAAAAAANGGAACCAA
GACACCGGGCCCANACCACNGGACCANGGGNAANGGAAACACCCCGGAAATGGCAGGGN
CCCCGAANAGAACCCCAAGGGAGCCCAGGGAAGAGGGACCCAAGATGGGGGGGGAAAGGC
CCACCGGGCCNGGGGNGAAANAACAAAGCCACCGAGGGCCAACCGNAAGNGGCCAANNGA
ACCCGGAACNANAAGGCNNAANCCACCCTGAAGNGGGAGGAAAAACCCCGAGGCNNGGGG
CCAAANANNAAAAAAAGCNGCCAAAAACCCCAA

NTTTAATTTTTTGCAGCCCGGGGGANCCAGGGGNAGGGNGAGCCACCGCGGGGGAGCGC
CAANCGCCCNACAGCGAGNCGNAANACGCGCNGCCACNGGCCCGCGNANAAACAACGN
CGAGACGGGGAAAAACCCGCGCNCACCAACNGAAACNGCCANGCAGCACAAANCCNCAAN
CGCCAGCGGGCGGAANAGCGAAGAGGCCNCGCACCGAACGCCCANCCCAACAGNGGCGCA
ACAGAAAGGGCGAAA

[illegible]

CACGCGTCCGGAAGGAGGGGAGGGGTGGGGCGGGCCGGATCTGCTCGCAGGCCCGCACCC
GCCTCCGGCTGGATGCTCAGAGTCTCGCCCTGATGGCCAGACTGGAGTGCAGNNGCGTGA
TCTCGGCTCACTGCATCCTCCACCTCCTAGGTTCAAGTGATTCTTCCACCTCAGCCTCCC
CTCCAAGGAGCTGGCATCACAGGACAGGCACGGAGACTCACGCCTGAAATCCTAATACT
TTGGGAGGCCGCGGCAGGAGGATCACCTGAACCCAGGAGTTTGAGACCAGCCTGCCAACA
TGATGTTGTTATTCATGAGGACCAATGGGTTGGCGAGACAGTACTACAATCAACATTTAG
CAGTCAGTTATTAATCTTGGGAGTTATTCATCTATTCAGCCTGAAGAATATTCCAGTGT
AGTTAGTGATGTTGTACTTCAAGACTTACTGGCATATGTGTNCTCAAAACATTCC

TTACCCCGCGTCCGGGTAAACAAAACAAAGATCGTTTGTCTGGAACAGGTAAAATGGT
AATCAAATAGATTGTGTTCCAGGAGTGCAAAGGTGGCTTAATATTCACAAATCAGTTGCT
ATTGTACACCACCTGTAGAAAAGTAATCTGGCATGCAGAACATTCTTATGGTAAAGTTAA
TGTTCATTTATGATCTTAGCAAATGATGGATTGAAAGGGACTTCCTTAATTGCATAACA
GACTTCAACAAACAGTATGATGAAATAGTGAACATTTCTCCTAAGATTATAAAAAATAAGA
CAAGGATATCTGCTGTCAATGATTTTTATTGAGCATTGTTGAGAAGGACCTAACCAGAAAA
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AGAAAAAGAATATAAATCTCTATTTGCATATGCCATGAGTAAATTTGGTAAGTTCCTGC
ATAAAAGTTATGCAAAAAGCATTTTTTTGATATACCAGCCAAAAATCAAGGGAAATGGAA
AA

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTG
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AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAG
CAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAAC

TABLE 1
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AAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATT
GGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTC
TTGAGAGAGCCCAAGGAGTTCTGGGGAGAGGGACCAGATTGGGGG

Sequence 1141

ATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCT
GAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGAT
GAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATT
CCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAA

Sequence 1142

ATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAAAG
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GGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATT
CCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAG

Sequence 1143

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCACTCTATCCATCGTGGATA
GAGAACTGAAGCTCTCTAAAGACCCTGCAGCTGGGAGGTGGCAGAGTCAATGGCAGCCC
TCAGCCCTATCTGCCCTGACATGGCATTCTCCCATTTCTCACCACCGAACCCCTCTAAAA
TAACATGTGTGGGGTCCTTGGCTGAGAGACTTNCCTTTTGGGAATCAATCTGAATGTAT
GATGACAAAGAAAACAACCTTTGCTTTATACAACCTTCTGGTTAGATTCAAGGCACCAAGC
AGGACACTTCTTTGTGGCGCTCCAAGAATCTTCAAATCTTCATCACCATAACAAATC
TTCTGCTTCTCTTAGAGCATCTTCTCCACAATTCTCACCCTCAATTAAGAGGCACTGGA
ACACTTTCCAGCGGACAGGGTTTAGTGCTTTGATCTGTTCCGTCATGTCCTCTTCCACGT
TGAAACGATTAATGACAGAATTTTTTTGGAGGCGACTCTATTAATCCCTACACCACCTN
CTCAGCTTTTGAAGGGTTTNCACATGGGTTCTTTT

Sequence 1144

GNAGCTCCCCGCGGTGGCGGCCGAGGTACGCCACCATGCCTGGCTAATTTTTGTATTTTT
AGTGGAGACGGGGTTTCACCATGTTGGCCAGGCTGTTCTCGAACTCCTGACCTCGTGATC
CACCCACATTGTCCTCCAAGTGCTGGGATTACAGGCGTGAGCCACTGTGCCATGAGGAT
TAGTAAAGTGCACTCATGGTAAGTAAAAAATTTGTTTTATGTTNATGCTGATTATATGA
AGGTCATCATAGCTTAGACACAATCAAAACCCATGGGGAACATCTTGAATTCATTTTT
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CCTGGATGAGACACACACATATTTAAATTGAATTATAGACTTAAATTTAAGTAGGGANT
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NTTGGAAAATATGATTATGAAAGCAGACTTTTTGGATGGGNGCTTAATGACATTTAGGCG
ACATTTAAATGCCCTAGGNGNGGGAACACTTGAAATTGCCANCTAAATTAATGACC
CTTTTAATTTGCCTGGACAACAAAAAANTTTCCATGATTTTGGCTTTTTTTGGAACAANN
GANNAAGAAAATTTTTTTTTTAG

Sequence 1145

CNATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACA
AGGCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAA
AGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATT
CTGAGGCTTTGCATGTCTTGGCATTCTTCANGAGCTGAATGAAAAATGCAACAAGCAG
ATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGA

TABLE 1

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ATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGC

Sequence 1146

TTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCACGGTACTGTGTCAACAT
GCAAGGCCAGGTGGCCGTGAGGAATGTCCAATGACAGGCTCTATCAGTCATGTCCTGGT
GCAGCTCCACATGTCTTCCAGAGGATGGAAGCTGAAAACCTAGCTTCAGTGATTGATGC
CAGGTTTAACTTTTTGTGAACAAGATTTGCCACAGTATCGTGATGCAGTCATGTCTCA
CACGCTCATCTATATCCCCTCCTACTTTGACTTCGTGCGTCTTCGAAATTACTTCAAGAA
GGAGGAATTGAATTTTACCCACATCTGCGAGTACCT

Sequence 1147

CCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTNTTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGGGAGCCCAAGGAGT
TCTGGGAGAGGGACCAGATTGGGGGGTAGGTCC

Sequence 1148

TTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGAGTTCT
GCGCAGCTTCCCGAGGCTCCGCACCAGCCGCGCTTCTGTCCGCCTGCAGGGCATTCCAGA
AAGATGAGGATATTTGCTGTCTTTATATTCATGACCTACTGGCATTGCTGAACGCATTT
ACTGTCACGGTTCCTCAAGGACCTATATGTGGTAGAGTATGGTAGCAATATGACAATTGAA
TGCAAAATCCAGTAGAAAAACAATTAGACCTGGCTGCACTAATTGTCTATTGGGAAATG
GAGGATAAGAACATTATTCAATTTGTGCATGGAGAGGAAGACCTGAAGGTTGAGCATAGT
AGCTACAGACAGAGGGCCCGGCTGTTGAAGGACCAGCTCTCCCTGGGAAATGCTGCACTT
CAGATCAAGATGTGAAATTGCAGGATGCAGGGGGTGACCTTGCCCGCTCTAGAAT
AGTG

Sequence 1149

TGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGA
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AGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGC
TGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTG
GACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCT
TGAGGGGAGCCCAAGGAGTTCTGGGAGAGGGACCAGATTGGGGG

Sequence 1150

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TGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGA
NAAAGAAAAGATGAANGACAACTGCAAAAAATTGCCAAAATGCNACTTTCTAAAAATGG
AGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATTGAAAAAA

Sequence 1151

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTG
TGAGGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGA
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AGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCA
ACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATC
AAGCTGGAATGGGGAACGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGG
AGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGA

TABLE 1
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Sequence 1152

CCGCGGTGGCGGCCGCGAGTTACCTGACGTATGACAACCCAGATATCTTGAAGAGGGTGTG
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GTGGAGGGGAGACAGCCCCATGAGACCCAACAGCGACTTCATTTCTTGGGCCTTCGGGA
TGGAGCCCTCGTGTTTCAGCTATAACCTGGGCAGTGGTGTGGCATCCATCATGGTGAATGG
CTCCTTCAACGATGGTCGGTGGCACCAGTTAAGGCCGTTAGGGATGGCCAGTCAGGAAA
GATAACCGTGGATGACTACGGAGCCAGAACAGGCAAATCCCCAGGCATGATGCGGCAGCT
TAACATCAATGGAGCTCTGTATGTGGGTGGAAT

Sequence 1153

GCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGAACTAAATTTTTTAACTTTA
TTTGCTGTAAATTTCTGTGAAGTTTCAGTTATCTAAATAAATATACACAAATATGAAAT
ATAATGTTTCAGATTGCAAGGTAATATGTAATAGTAGTGTTTGTAAAGATACTCTTGCTA
ATATTAAGTAGTAGTATTTTGATTTGTACAATGTCACCTCCCAGCAACAAGAAGAACAA
GCTACTGAATCAGTGTCCCTTTATTACTATGGCATCAAAGATTTGGCTACTGTTTCTTC
TACATGCTAGTGGCGATAATTATTCATGCCGTAATTCAAGAGTATATGTTGGATAAAATT
AACAGGCGAATGCACTTCTCCAAAACAAAACACAGCAAGTTTAATGAATCTGGTCAGCTT
AGTGCCTTCTACCTTTTTGCCTGTGTTGGGGCACA

Sequence 1154

GAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGT
TCTGGGAGAGGGACCAGATTGGGGGGT

Sequence 1155

TGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAATGTGTGAAGACAAGGCCATCCA
CCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGA
CAAAGTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTT
GCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCANCAAGCANATGAAGACT
CTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCAC
CAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGG
CCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGG

Sequence 1156

CCGCGGTGGCGGCCGCGGCCGCGGAGGTACATTGGCACGTACGATGTCTTGAGTTTCATTC
ACTAGGTGGCAGCCTGCATCGTTCCACTGCAAATGACTGAAATCCCAAAACACACAATGA
GGCTGGCTCAGGTTTGACTCTATCTTGGAAAAAATAGGAAAACCTTCATTTATGGAATAG
TTTTGAATAACCGTGGATATCACAGGTCCATTGACCTGAGCATTTCATTTTTTGAAACG
GGTAGAATGTTCCCAAGAGTCAACGAGGCCATGCTGATAATAGTTTCTGGAAGGGATCTC
TGGAATTGGTCTGACCCAATTAACACACGGCCTCTGATGGGAATAGATGTATTTTGGGGA
CACATTTTAATCTGATAGCTGTAACCCCTTTTGAGTTGGCTTTTGTTCACTGGAATCCCT
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CTGATGTTTTCT

Sequence 1157

ATAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCCGCGGAGGTACGCGGGGAGTGG
GAAGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGAGGGAGA
TACACCAACTGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCACACAGGA

TABLE 1

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TCATTTCTGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAAACTTAC
TGCAGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTC
TACTATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCGATCTATG
TTTAACACCATCTTACTAACCATTATTGCTATGGGTGGGTATACACTGCCTATGTCTTTA
TTCCAATCCACATTGCTGCTGGGCTTGGGAATTTTCTTCAAAAATATGTGGATATCACAG
GNCCTCGGCCCGCTCTAGAACTAGTGGGATCCCCCGGGCTTGCAGGGNAT

Sequence 1158

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGCAGTGGGA
AGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGAGGGAGATA
CACCCAATGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCACACAGGATC
ATTTCTGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTACTG
CAGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTCTA
CTATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCCGATCTATGT
TTAACACCATCTTACTAACCATTATTGCT

Sequence 1159

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGCAGTGGGAA
GCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGAGGGAGATAC
ACCCAATGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCACACAGGATCA
TTTCGTGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTACTGC
AGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTCTAC
TATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCGATCTATGTTT
AACACCATCTTACTAACCATTATTGCTATGGGTGGTATACACTGCCTATGTCTTTATTCC
AATCCACATTGCTGCTGGCTTGGGAATTTTCTCA

Sequence 1160

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACCTTTATA
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AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCANATTCTGAGGCTTTGCATGTCTTG
GCATTCCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTNAGCATCAAGCTGGAATGGGAATGAAGAAATAGAN
ATGTGGTGCCCA

Sequence 1161

ACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGAAGGTGGGTGACGTGCGGA
TCTTCTTCTTTTGTGGCTGTGGACACCTTTCAACACTGCCTTCTTGGCCTTTAAAGCCT
TCGCTTTGGCTTCAGCTTTAGGAGGGGCAGGAGCCCATCGCAAACCACGCTGCGGAGAG
AGGGGCGGGTAATGTAGCCCGGTTGAACATGAACCAGAAGGAAAATGTTAAAGCTGAGG
GCACTAATTCTTACAGGCCCGGGGACATGGAGCTCCAACCAGTGGATGCATGTAGCTTC
CCAGAACCGAATGTCTGCCCGCGTACCT

Sequence 1162

CCGCGGTGGCGGCCGAGGTACCACTCTATCCATCGNNGATAGAGAACTGAAGCTCTCTA
AAGACCCTGCANCTGGGAGGTGGCAGAGTCAATGGCAGCCCTCAGCCCTATCTGCCCTGA
CATGGCATTCTCCCATTTCTCACCACCGAACCCCTCTAAATAACAATGTGTGGGGTCTT
TGGCTGAGAGACTTCCCTTTTGGGAATCAATCTGAATGTATGATGACAAAGAAAACAACT
TTTGCTTTATACAACCTTNTGGTTAGATTGAGGCACCAAGCAGGACACTTCTTTGTGGCG
CTCCAAGAATCTTTCAAATTCTTCATCACCATAACAAATCTTTCTGCTTCTCTTAGAGC
ATCTTCTCCACAATTCTCACCCTCAATTAAGAGGCACTGGAACACTTTCCAGCGGACAGG
GTTTAGT

Sequence 1163

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGA
CAAGGCCATCCACCACCTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGA
AAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGC

TABLE 1
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AGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGA
AATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAGATTGGAC
TAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCT

Sequence 1164

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCNGGCACGGTNCCAAATGAAC
GTGTGAAGACAAGGCCATNCACCACTTTATAGAGGGTGTAATAATAAACAGGAAATCAA
GGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAA
ATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAA
TGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAG
CATCAANCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAA
AGGGAGCTGAAATTCCTCCACCAAGTT

Sequence 1165

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCATTTTCTTTNTCCTGT
CCATAATCTTCTCCACCACGTGGCTGTGTNCAAGACTCTCTGAACCTNCTCTGGCTCA
GGAGGCTTNTAGATNTGTGAATTGTCTGCTCAGTNNACTCCATTAAATTNAATNTGGCC
AAGAANTTTCTTCTTAACAGNGGTATTGATGACCATTAATCCTTCAACCTAACCTGCTC
ATTAA

Sequence 1166

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGAT
TCTGAGGCTTTGCATGTCTT

Sequence 1167

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAACAAGCGTTTGT
AATGTTTCCCAAATATTAGCTTTGAAATCCAAATGTCAAGCAGGTTAAAGTTCANAAAC
TATAATGTAATTGTTAATAAAACAATGGATGAAAAAAGTCATTGAAATTTTTTCTACT
TGGATTAAGAACATAAATTAAGTGCAACTGCAAAAAATAATATTAGTTTGATAAGTAAA
ATAAAACAACTAGATATATTTGAAAAATAAAAAACAATGAAACAAAAATAAATTTAGG
TAAAGAAAATTCAACGTAATTTGTTGTAGCTATATTTTTGTAAATAATTACAAAAGTAGA
ATAATAGCTCATAAAGCAAAAACAAAATTTATCTATGTTCTTTTTTCAGTCAATTCA
GAATTTTAGCTTCATATTTGAAGCATTTTTTCTAATTTTGTGNGAATTTGAATTTGT
TTGCGGATTTTGATTTGCCATAAAATATTATATTNTATTTAATTATTAATCTTCGTC
AGCTTTAATTGCTCTTCTTTAAATTTGATCTGAAAT

Sequence 1168

CCGCGGTGGCGGCCGAGGTACCCTTGTCTCTTCTTCAGTGACTTAAACAATTCCAGGA
TCAGAAGAGAAGCCAACGTGACATCCTCGATAAACTGGGGATAAGCTGAAGTTCTGTCT
GTTACGAAGTGTTGAAAAACAATTCGAGATCCAGAAGTCCCTTGATGGGTTCCACAT
CCAGGTGTTCAAAAAAATCAGAGAATCTTTTTNAGGGGGTGGNCGCNTTAACCCTTTTN
NGGTTNANTGAAAATCCCCCCCCCTGNTTTTTTTTGGAGAGGTTNAAAAATTTTTTTTNA
AAAAAAACCCCCCCCCCNNGGNATTNTNANTTTTTTTTTTNNNNNCCCCNNCAAAATTT
TTTTTTTAACCCCCCCCCCNAAAAAAGGGTTTTTTTTTTTTTAAAAACCCNCNGN
TCNCCCNCCANAAAAAANGGGGGTCCCNTTTTTTTTTTNTNNCCCCNNGGGN
TTTTTTTTTTTTTTNTCTNNNNNNGGGGGGGGGGAAAAAANAATTTTTTTTTT
TGGNNGGGGGGGNNGCNCCNCCCCCNCGGGGGGGGNGGNTTAAAAAANGNCCCC
CCNGGGGGGGGAANNANTTTTANTNNNTCCCCCCCCCNGGGGGGGGGG

Sequence 1169

CCGCGGTGGCGGCCGCCGCGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAATAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA

TABLE 1
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GAGGGGTTTGGAGTCTGGAAGCCTCATCNCTTCAGCATCAACTGGAATGG

Sequence 1170

CCGCGGTGGCGGCCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCANATGAAGACTCTGA
GAGGGGTTTG

Sequence 1171

GNGGCGGCCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGG
GTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAAACTGCAAAAAA
TTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCAT
TCCTTCAGGAGCTGAATGAAAAAATGCAACA

Sequence 1172

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCATCTAGGTCAG
TTAAGAAGAGTCAGCTCAGAGAAAGCAAGCATAAGGGAAAATGTCACGTAAACTAGATC
AGGGAACAAAATCCTCTCCTTGTGGAAATATCCCATGCAGTTTGTGATACAACTTAGTA
TCTTATTGCCTAAAAAAAATTTCTTATCATTGTTTCAAAAAAGCAAATCATGGAAAATT
TTTGTGTGCCAGGCAAATAAAAGGTCAATTTAATTTAGCTGCAATTTCAAGTGTTCCTCAC
TAGGTGGCATTTAAATGTCGCCTGATGTCAATTAAGCACCATCCAAAAAGTCTGCTTCATA
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AAAAAAAATATTCTACTTAAATTTTAAGTCTATAATTCAATTTAAATATGTGTGTGTCT
CATCCAGGATAGGATAGGTTGTCTTCTATTTTCCATTTTACCTATTTACTTTTTTTGTAA
GAAAAGGAGAAAAATGAATTTCTAAAGATGGTCCCCATG

Sequence 1173

AGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCCAGGTGTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC
CAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCA
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAACATGTCC
TTGCTCTCGCAGTGGCCCTGGCAGGCCAGCCTTCAGTTCCAGGGCTACCACCTGTGCGGG
GGCTCTGTCATCACGCCCTGTGGATCGTCACTGCTGCACACTGTGTTTATGACTTGTAC
CTGCCCCG

Sequence 1174

AGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCNAGGTGTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC
CAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCA
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAACATGTCC
TTGCTCTCGCAGTGGCCCTGGCAGGCCAGCCTTCAGTTCCAGGGCTACCACCTGTGCGGG
GGCTCTGTCATCACGCCCTGTGGATCGTCACTGCNTGCACACTGTGTTTATGACTTGT
CCTGCCCCG

Sequence 1175

AGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTNNAGGTGTTACAGCTGCT
TCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCCTGTGCC
CAACTGGGTTTCCCAAGCTATGTGAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGGG
CAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGCA
TTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCA
TGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGGAACATGTCC
TTGCTCTCGCAGTGGCCCTGGCAGGCCAGCCTTCAGTTCCAGGGCTACCACCTGTGCGGG

TABLE 1
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GGCTCTGTCATCACGCCCTGTGGATCGTCACTGNTGCACACTGTGTTTATGACTTGTAC
CTGCCCG

Sequence 1176

CCGGGCAGGTACAACAAGCGTTTGTAAATGTTTCCCAAANATTAGCTTTGAAATCCAAATG
TCAAGCAATTAAGTTCAAAAACTATAAATGTAATTGTTAATAAAACAATGGATGAAAA
AAGTCATTGAAATTTTTTCTACTTGGATTAAGAACATAAATTAAGTGCAACTGCAAA
AATAATATTAGTTTGATAAGTAAAAATAAAACAACTAGATATATTTTGAAATAAAAAAC
AAATGAAACAAAATAAAATTTAGGTAAAGAAAATTCACGTAATTTGTTGTAGCTATATT
TTTTGTAAATAATTACAAAAGTAGAAATAATAGCTCATAAAGCAAAAAACAAAATTTATTCT
ATGTTCTTTTTTTCAGTCAATTCAGAATTTAGCTTCATATTTGAAGCATTTTTTCTAA
TTTTGTTGTGAATTTGAATTTGTTTGCGGATTTNGATTTGCCATAAAAAATTATATTT
TATTTAATTATATTAATCTTCGTCAGCTTTAATTGCTCTTTCTTTAACAATTTGATCTGA
AATTTGTTTGGTGTTATTTCATAGTGATCAAATTCATTTGATAAGTTCCACGACCTGA
TGTCATAGACCTTAATTGTGTTGAGTATCCAAACATTTT

Sequence 1177

TAGGGCGAATTGGACTCCACGCGGTGGCGGCCGCCCGGGCAGGTACCTACGGAAATCCT
AACTACCACTGGCAGGAACTGCATATNTTCTGGTTTACATGAAGANGGAGGGCTAANGG
AAATGCCCAAAACCTTCAGAGATTGACACCGCTGTCATTNTCCATNTCNGTTCCTGGAAT
CTACCGGGAGTNTTNATAAGAAGANTTTTGCAAATNGAGGGAAGAAGCAATTGTTTTCAA
ACTATATAACTGGAGNCCTTAATTTATAATTAGGGGATATTTAATCAAAAATATNGTAAA
CCATGGAGGGCCCCCTCAGNGTNTCTGGATCAGGTTCAAGAAATNGAAATGNTTTTCACCC
AAGNCANGACCCCGGCCATGTGGGCATGNTCCGGGTNCCTGGGGGTGGCNTCGNCTGGCT
TGTGGCGAANGAACAAATTAAGCCCCTTTTAAGTTTATTGAAGCCCTGNGGGGAAACTTTA
AGGGGGTTTTCCANAGTTGGGGGANGAAGCANTNGGNNAGTTGGNGAAGGGCATTTTGGGG
GGG

Sequence 1178

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGC
CATCCACCACTTTATAGAGGGTGTAATAAATAAACAGAAATCAAGGGAGAAAGAAAAGAT
GAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGA
GGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGA
AGACTCTGAGAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGG
GGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTC
TCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGAC
ACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCT

Sequence 1179

CCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAATAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAATGCGACTTTNTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGG

Sequence 1180

CCGCGGTGGCGGCCGCCCGGGCAGGTACCTATTGCCAGGAAGATAGGCAGCTCATCTGTG
TCCTGTGTCCAGTCATTGGGGCTCACCAGGGCNCNCAACTCTCCACCCTAGACGAAGCCT
TTGAAGAATTAAGAAGCAAAGACTCAGGTGGACTGAAGGCCGCTATGATCGAATTGGTGG
AAAGGTTGAAGTTCAAGAGCTCAGACCCTAAAGTAACTCGGGACCAAATGAAGATGTTTA
TACAGCAGGAATTTAAGAAAGTTCAAGAAAGTGATTGCTGATGAGGAGCAGAAGGCCCTTC
ATCTAGTGACATCCAAGAGGCAATGACCACAGCTCATGTGACTGAGATACTGGCAGACA
TCCAATCCCACATGGATAGGTTGATGACTCAAATGGCCCAAGCCAAG

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Sequence 1181

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGG
CCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGA
TGAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTG
AGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATG
AAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATG
GGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTC
CTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGA
CACTGGCCATACCACTGGACAGGGTTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGA
GCCAAGGAGTTCTGGGAGAGGGACCCAGATTGGGGGGGTA

Sequence 1182

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACCAAATGAAGTGTGAA
GACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAA
GAAAAGATGAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCA
GATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAA
GCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGC
TGGAATGGGGAATGAAGAATAGNAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGC
TGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTG
GACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAA

Sequence 1183

TCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAA
GACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAA
GAAAAGATGAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCA
GATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAA
GCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGC
TGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCT
GAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGG
ACTAAGACACTGGCCATACCACTGGACAGGGTTTATGTTAACACCTGAATTGCTGGGTCT
TGAGAGAGCCCCAAGGAGTTCTGGGAGAGGGACCAGATTGGGGGGTAGGTCCCGGGCTTGG
TGATAGAAATATTTCTCGATGACTTTCTTGAGTGCAATTTGNACTGTAACATTTGCTTAA
TCACCTT

Sequence 1184

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGATAGTCATCTCAGTAAAGGTCTAT
TATCTAAGTTGCCAACTTGTTTACTGAGAGCCCTAAGGAACTAAACNCGCATAATGCC
GTGCACAGNTTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAGTTTN
CTCAAGCAGGCCTGGCTGAAGGCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAA
TAGCAATAGCAATAAGAAGAATGCCATCCATGGAGCACACCATAATTCTGGAACCACT
NTCCCGGATCAGGCTTCCATTGCTCACGATGCTCACGCTGGGCAGCCGCAACTNTACTTT
GCAGAACCTCACCAACTTGCCCAGGTNTTCTCCCGGTCTTGAAGAAATGGCTCTCCACC
TGAAAAGTNNGATCTTCTCATACCAGCTTCTTAAGCAAAAGCAATCCTCTCTTTGCTTC
CTCAAGGGGCA

Sequence 1185

TAGGGCGANTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAA
GGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAA
GATGAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTC
TGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGA
TGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCNTTCAGCATCAAGCTGGAA
TGGGGAATGAANAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAAT
TCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATG

Sequence 1186

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGG

TABLE 1
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CCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGA
TGAAAGACAAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTG
AGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATG
AAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATG
GGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTC
CTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGA
CACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAG
CCCAAGGGAGTTCTGGGAGAGGGACCAGATTGGGGGGTA

Sequence 1187

CCGCGGTGGCGGCCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCAT
ACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGT
TCTGGGAGAGGGACCAGATTGGGG

Sequence 1188

CCGCGGTGGCGGCCGAGGTACAAGATANTCATCTCAGTAAAAGGTCTATTATCTAACTTG
CCAACTTGTTTACTGAGAGCCCTAAGGAACTAAACTGCCATAATGCCGTGCACAGCTT
GAAAAGCAATTAGAGTAAGCAAGATTAGTTTTTCTCCCTTTCNAAGTCCTCAGCAGGCC
TGGCTGAAGGCCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAATAGCAA
TAAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCACTCTCCCGGATCAG
GCTTCCATTGCTCACGATGCTCACGCTGGGCAGNCGCAACTCTACTTTGCAGAACCTCAC
CAACTTGCCAGGTATTCTCCCCGGT

Sequence 1189

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAG
TGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGG
GAGGAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAAT
GGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATG
CAACAAGCAGTGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAG
GGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAA
AGAATTGGACTAAACACTGGCCATACCACTGGACAG

Sequence 1190

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGGCGAAGCTAGA
GACTGTAACCTGAAGATTGGGACAAATTAAGAAAAAAATGTGATTTAACACAATTACAA
AACTGTTACGTTAGGGTCAAACAAGAACCATTTTATGAACTGAATTACAACAAATGAC
ATTATATCTAACTCTTCCGGGTCTCCACAACACTTATACTTACTTAAGCAGCTTAAACAC
TTCCGAGTCTCCACAGCACTCTGATACTTACTTAAACAGCTCTTTAACCTGCCCTAGTA
TTCTTAAGTGCAGCATATCTAATTTTTTTTTCTCAAGTAGTTTGAA

Sequence 1191

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGNCAGGTACCAAATGAACGTGT
GAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAG
AAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAA
CAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCA
AGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGA
GCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGAT
TGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAA

TABLE 1
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Sequence 1192

CGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGAC
AAGGCCNTCCACCACTTTATAGAGGGTGNAAAAATAAACCAGAAATNAAGGGAGAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCANAT
TCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCC
GATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGG
AATGGGGAATGAAGAATAGAGA

Sequence 1193

TGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCT
GAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGGAAAAATGCAACAAGCAGAT
GAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATT
CCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAG
ACACTGGCCATACCACTGGACAG

Sequence 1194

NGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACATAAATCACCTGGAACCTTG
TTAAATGCAGATCCTGACTCAGGAGGTCTGAGTTAGAGCCCAGGATTNCATATTTCTAG
CCAGCTCCATGATGAGCTGCTGGTCCGCAGATCATGCTTGCNNGTTTTGACCAGAGTCAG
TGTTGGTTANAGTAAGAGGATGAGGCANACATNTGGGAAAAGTCCAGCTGGGGCAAGCAT
TTGAAGTCTGCCTTCTACCANGTCAAAATCAAGGCAACGACCTTCCATAGATAACTATC
AAAGCTTGAGGGGGNGCCTTGAACCCAACCTCTAAATCCCTAAGACCTGCCACCTCTTG
TGCTCCTGTNTNAGCAAACATTCCCACACTCTTGCATATTGTTAAAAGTAACCTCTGCT
TACCAGGCTTTTG

Sequence 1195

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGGGGGTGTCCGAACAAGGCAGGTTG
GTGGGTAAAGGTCTTAATCTTGACTCGAGATCTCTCTCCGGAGTTCACAGNGTNGGCGAC
GAAGCCGAAGCAGCTGGAGCGCGACCCGGAGGAGTCTGACTTCTCGTTGTCTTCATAATT
TTCATTGTTGCTTTCTTCGTGGACTTGCGGTGGGGGAGGATCCCCGCTGGTCGCCGAG
CAGGCGGGCGGGTAAAGGTAGGCCGCCGAGAGCGAGGTTAGGAGAGGAGAGGAGGCCGCA
GTACCT

Sequence 1196

ATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGAGGAGGCGGAAGCGC
AGCGGGGGCGGGAAGGTTGTAGTGCCGCGAGTTGAGCTCCTCTTGCTAAGTGGTCGCGC
CCCCTTTAAGAGCAGCGATTGTAAGGAGAGGCGGTCCCGGTGTCCTCGGGTCCCAGGTGA
TTGTGAAGTGCTGACCAATTGCCACTGGACATACTTGAACAAAAATAGGAAAATGGCAGC
AAACCCTGTCTCTAAATCAATCAATCAAGCGAGCCAGAATGCAGTAGTGGCCTGAGAGAG
GCATCCTGGAACGCAGTGCGGTCTGGCTAGGCTTAGAAGTATTCATGTGATTTTACCTG
ACAAGGG

Sequence 1197

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGA
AGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAA
AGAAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGG

Sequence 1198

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGAGAGCG
AGCTTCGGAAGCAGTGGTGGGTCCATGTGGTGGTGGAGTAGGAGGCAGGTCTCCGCG
GTGGTTTCCACAAGAAAAATGGCACAATGTTTCTCAGAAGACAATTACATAAGAATCAGC

TABLE 1
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ATACTTTAAATTCACAGCAAATAATCAGACAATTGATGAAAATACTTACCCAAACACTAA
TTGTAGACTGTGCCTTCTGAATATGTTTTGTCATAAACTTGGAGTAAGGAATCCTCACAG
GCACTGGACAATTCAAAAAACGTAAAGTTTGTGTTAGAATACCTGGGTGCTTTTGGAT
AGAAACCCTCATCCATATCCTGGTAAGGCTTGAAGTTGCACAGGAGTTTTCATTTGTCAA
AACCCAGAAAACCATAAGCTTTAGATTTGGG

Sequence 1199

CCGCGGTGGCGGCCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTNTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTTTGA
GAGGGGTTTGGAGTCTGGAACCNATCCTTTCACNTTCAACTGAAATGGGGAATGAA

Sequence 1200

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAANTGAAGTGTGAAGACAAG
GCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCCATAAATCAAGGGAGAANGAAAAG
ATGAAAGACAACTGCAAAAAATTGCCAAAATGCNGACTTTCTAAAAATGGAGCAGANTC
TGAGGCTTTGCATGTCTTGGCATTCTTCAAGAGCTGAATGAAAAAATGCAACANGCAGAT
GAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCNTTCAGCATCAAGCTGGAAT
GGGGAATGAAGAATATAGATGTGGTGCCCACTAGGNTNCTGCTGAAAGGGAGNTGAAATT
CCTCCACCAAGTNGGTATTCAAATA

Sequence 1201

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGGCACGGTACGCGGGGGTAAC
TGAAAATCCACAAGACAGAATAGCCAGATCTCAGAGGAGCCTGGCTAAGCAAAAACCCTGC
AGAACGGCTGCCTAATTTACAGCAACCATGAGGCCACTTAAGGATGCAGCAAGAAGGAGC
CATCTGCAATCCAGGAAGAAATTCCTTGCCAGGAACCAAATTGGTTGTCACCTTCATCTA
GGACTTCTAGCCTCGAGAACTTACAAATGGTGATGATCAT

Sequence 1202

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCCATAAANNAAGGGAGAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCANAT
TCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCA
NATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGG
AATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAA
ATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAAG

Sequence 1203

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGGCAGGTACAATATAAAATAATA
CATATGAAGCCACAATATTCAATTACAGTTCAAAAGTAGAAATTACTAACTACATGTAGCT
GCTTCATTTTTCGTTTTGCATTTTGGCCCCAATTCATATTTACAACTGATACCTGCTGA
GAAAAAGATCCAACTTTTAACTTTGTATGTTTTGTGGAGGGTGCACAATTTCTTTCTAA
TATATCTTCAGGTGTTTTAAATTTAATTTGTTTTAATCATAAGATATCATCATGGCCA
AGAGACTGGGAAAATAACAATTTTATTCTTTCTCCTAAGATTGNGATTTTATTATTCCAA
GATCTTATGCTTGAATTACTTAGCAAGAAGGCATGATTATGCANAAGACAGGGAAATGAA
GAGAAAAGAGCGGGAATATACGAAAATGAAGCTTCCTTAACAGAGTTCATGGTGGAGATG
GTAGACACTGGTGGAGTTTTTTTCCAGACTTAA

Sequence 1204

TCGAGCGGCCCGCCCGGGCAGGTACACTCTAAAGAAAGCCATGAGGATGATAATCCACTTT
GATACTTCCAATCTGCTGGTCTTGCTGAACTCTTTGGATCATGGATATCATAAGTTGAC
AAAATATTTTTTTGTAGAAGCACAAATGTGAAGNGTCACTCGTTCTGAGACTTCCTCCT
CTGTGAAATTCACAATCTCTTTCTATTTATAGACTTTTCCACAGCAAACATTAGTCTAC
GCAGAGCATTTTGAAAATCATTTGCCAGTTCTAAAGTAGTAATAATAAATACTCCAAGAA
CTAAAAGTCCCCCTGGTAGCATTCTGGATACCTGGCAGGCATGTTCTGTGGCCCATTC

Sequence 1205

TABLE 1
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NNGNCCTTTTCGAGCGGCCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCC
ACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAG
ACAACTGTAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTT
TGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACT
CTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAAT

Sequence 1206

AGCGTGGTCGCGGCCGAGGTACATAAACATTATTCCTTCCTTGGCCTAAAACTCATCG
CCACCTACATTAAAGCTAATATGCCTGATTACTGTTTTAGAGAACTATTTTATTAGGG
CAGTTCCAAGCTCAAAAATACGCTAACTGGCACCTTGNTAGCTACATAAAAATGCACCTT
AGACCCGAACTTACTAGACTCATTATAAAATTTCTTTAAGGTGTCCACGCAGTCCCTG
GTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTACCCAGTAATCCCCAGAAGGAAC
TTACACTTTTTTTAATCTTTTCTACAACCTTCATATTTTATAATA

Sequence 1207

CCCTTAGCGTGGTCGCGGCCGAGGTACCATCTAGGTCAAGTTAAGAAGAGTCAGCTCAGA
GAAAGCAAGCATAAGGGAAAATGTCACGTAACTAGATCAGGGAACAAAATCCTCTCCTT
GTGGAATATCCCATGCAGTTTGTGATACAACTTAGTATCTTATTCCTAAAAAATA
TTTCTTATCATTGTTTCAAAAAGCAAAATCATGGAAAATTTTGTGTCCAGGCAAATA
AAAGGTCAATTTAATTTAGCTGCAATTTCAAGTGTCTCACTAGGTGGCATTAAATGTC
GCCTGATGTCATTAAAGCACCATCAAAAAGTCTGCTTCATAATCTATTTTCAAGACTTGG
TGATTCTGAAAGTTTTGGTTTTGTGACTTTGTTTCTCAGGAAAAAATATTCCTACTTA
AATTTTAAGTCTATAATTCAATTTAAATATGTGTGTGTCTCATCCAGGATAGGATAGGGT
TGTCTTCTATTTTCCATTTTACCTAT

Sequence 1208

CCCTTTTCGAGCGGCCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCAC
CACTTTATAGAGGGTGTAAAAATAAACAGANATCAAGGGAGAAAGAAAAGATGAAAGAC
AACTTGCAAAAATTTGCCAAAATGCGACTTTCTAAAAATGGAGCANATTCTGAGGCTTTG
CATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCANATGAAGACTCT
GAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGA
AGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCA
AGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGATTGG

Sequence 1209

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATA
AACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAATTTGNCAAAATG
CGACTTTNTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAG
CTGAATGAAAAATGCAACAAGCAGATGAAGACTNTGAGAGGGGTTTGGAGTCTGGAAGC
CTCATCCCTTNAAGCATCAAGCTGGAATGGGGAANGAAGAATAGAGATGTGGTGCCCACTA
GGCTACTGCTGAAAGGGAGCTGAAATNTCCTTCCACCCAAGTTGGTATTTCAAATATGT
NATTGACTGGATANGGGCAAAAAGGATTTGGACTAAGACACTGGGC

Sequence 1210

GCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAACGGCCATCCACCACTTTATAG
ACGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAATTTGCCAAAATGCGACTTTCTAAAAATGGAGCATAATTCTGAGGCTTTGCATGTCTT
GGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCNGATGAAGACTCTGAGAGGGG
TTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGA
GATGTGGNGCCCACTAG

Sequence 1211

CGGAAANTTGGGGGGCCCCCTTNCTTAAGAAAAGGCCATTGGCTTNCCGAAGGCGGGGGC
CCCGCCCCAAGTTGGTTGGAANTGGGGGATTATTNCTTTGGCCAAGAAAANTTTCCGGGG
GGNGTTTTNAAGGGNGGGGGGGGGGGCCCCCCCCGGGGCCCCCAAAAGGGGTNAACCCCCC
TGGGGGGNAANAGGGGGGGGAAANNTTTNNNAAACCGGNNAAAAACCCCCCAGGGGGGG

TABLE 1
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CCCCCGGGGGGGGAAAAANCCCCNNGGGGGGAAACCCCCCGG

Sequence 1212

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGT
GAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAG
AAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAA
CAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCA
AGCTGGAATGGGGAATGAAGAATAGAAGATGGTGGTGCCCACTAGGCTACTGCTGAAAGG
GAGCTGAAATTCCTCCCCAAGGTTGGGTATTCAAATATGTAATGACTGGGTATGGCAAA
AGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAATTGCT
GGGTCTTGAGAGAGCCAAAGGAGTTCTGGGAGAGGGACCAGATGGGGGGGTA

Sequence 1213

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTG
GCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTAT
TCAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTG
G

Sequence 1214

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGCGGCAGGTACCAAATGAAG
TGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGG
GAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGTCAAATGCGACTTTCTAAAAAT
GGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATG
CAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAG
GGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAAA
GATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAACACCTGAAT

Sequence 1215

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGA
CAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGA
AAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGC
AGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGA
AATTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGTATGGCAA

Sequence 1216

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTG
AAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACCTTCTAAAAATGGAG
CAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAAC
AAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGGAATGAAGAATAGAAGATTGTGGTGCCCACTAGGCTACTGCTGAAAGGG
AGCTGAAATTCCTCCCCAAGGTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGA
TTGGACTAAGACACTGGCCATACCACTGNCAGGGTTATGTTAACACCTGAATTGCTGGGT
CTTGAGAGAGCCNAAGGAGTTCTGGGAGAGGGACCAGATGGGGG

Sequence 1217

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTG

TABLE 1

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GCATTCCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCCCAAGTTGGTATT
CAAAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGG
CAGGGTTATGTTA

Sequence 1218

CCGCGGTGGCGGCCGAGGTAAGTCTTACAGTCTTCAGGAAATTCATTAAATCAGTGCCTC
CAGTTCCTTTGGCTTCCAGTTTTGAAGGGTCTTCAGAGGTCTTATTCTCCTTTGGCTGCT
GGCTTGCAAGGAATCAGGATGTACTGTTCTGTTGGCCGAGTGGAGACTGGNGTTCTCAAA
CCCGGNATGGTGGTCACCTTTGCTCCAGTCAACGTTACAACGGAAGTAAATCTGTGCGAA
ATGCACCATGAAGCTTTGAGTGAAGCTCTTCCTGGGGACAATGTGGGCTTCAATGTCAAG
AATGTGTCTGTCAAGGATGTTCTGTCGGGGCAACNTTGTCTGGTGACAGCAAAAATGACCCA
CCAATGGAAGCAGCTGGCTTCACTGCTCAGGGTGATTATC

Sequence 1219

CCGCGGTGGCGGCCGCCCCGGGCAGGTACCCTGATGCTACAGACGAGGACATCACCTCACA
CATGGAAGCGAGGAGTTGAATGGTGCATACAAGGCCATCCCCGTTGCCAGGACCTGAA
CGCGCCTTNTGATTGGGACAGCCGTGGGAAGGACAGTTATGAAACGAGTCAGCTGGATGA
CCAGAGTGCTGAAACCCACAGCCACAAGCAGTNCAGATTATATAAGCNGGAAAGCTTATT
GATTANAAGCAATGNGCNTTTCCGATNTGATTGATNNGTNAAGNAACTTTTNAAANGTN
ANCCCTGAATTNCCNNNACCCAATTAATTTTTNANANCCCTTTAAAAAATTTTNCNTNG
GGNTGGGGCCCCCCCCNAAAANTTAGGGNANAAAAAATATNAAANCCCCNNAAAATATTTT
NNNTTNTTTTCTAAAAAAAATAAAAAACCCNCCNTTTTTTGGGGGGGGCATTAAAAAGG
GGGAAAAAAAATTCGAATTTTTNCCCTTTTCNTTTANCCNAAAAAAAAAAAAAAT

Sequence 1220

CCGCGGTGGCGGCCGAGGTACATTGGCACGTCACGATGTCTTGAGTTTCATTCACTAGGT
GGCAGCCTGCATCGTTCCTACTGCAAATGACTGAAATCCCAAACACACAATGAGGCTGGC
TCAGGTTTGACTCTATCTTGGAAAAAATAGGAAAACTTCATTTATGGAATAGTTTTGAA
TAACCGTGGATATCACAGGTCCATTGACCTGAGCATTTCATTTTTGGAAACGGGTAGAA
TGTTCCCCAGAGTCAACGAGGCCATGCTGATAATAGTTTCTGGAAGGGATCTCTGGAATT
GGTCTGACCCAATTAACACACGGCCTCTGATGGGAATAGATGTATTTTGGGGACACATTT
TAATCTGATAGCTGTAACCCCTTTTGAGTTGGCTTTTGTTCAGTGGAAATCCCTTCCAGT
CA

Sequence 1221

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACA
AGGCCATCCACCACTTTATAGAGGGTGTAATAATAAACCAGAAATCAAGGGAGAAAGAAA
AGATGAAAGACAACTGCAAAAAATGCCAAATGCGACTTTCTAAAAATGGAGCAGATT
CTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAG
ATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGA
ATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAA
TTCCTCCACCAAGTTGGTATTCAAATATGTAATGACTGGGTATGGCAAAAGATTGGACT
AAGACACTGGCCATACC

Sequence 1222

CCGCGGTGGCGGCCGCCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAATAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAGGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATGNAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCCCAAGG
TTGGGTATTCAAATATGTAATGACTGGGTATGGCAAAAGATTGGGACTAAGACAC

Sequence 1223

CGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACCAA

TABLE 1
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TGAANGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAA
TCAAGGGAGAAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCT
AAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCNTTCCTTCAGGAGCTGAATGAA
AAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCT
TCAGCATCAAGCTGGGAATGGGGG

Sequence 1224

CCGCGGTGGCGGCCGCGCCGCGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCA
TGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGA
GAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAG
AATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAG
TTGGTATTCAATATGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATAC
CACTGGACAGGGTTATGTTAACACCTGGAATTGCTGGGTCTTGAGAGAGCCCAANGGAGT
TCTGGGGAGAGGGACCAGATTGGGG

Sequence 1225

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAACTGCAA
AAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTG
GCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAACAGAA
GATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGGTTGGG
TATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGGACTAAAGACACTGGCCATAC
CACTGGACAGGGTTTATGTTAACACCTGAANTGCTGGGGTCTTGAGAGAGCCCAANGAGT
TTNGGAGAGGGCCAGATGGGGGGGTAG

Sequence 1226

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATA
AACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATG
CGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAG
CTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGC
CTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAAGATGTGGTGCCCACT
AGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAAT
GACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTT
AACACCTGAATTGCTGG

Sequence 1227

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCCAGGAAGTGAAGTAAAA
CCTGGTCTTGGTTGATAGGCCCCAGGTTGGCTTGGAGCCATTCCAGGTTGAGAGGCAGGA
GCCACAGTATAATTAGTAGGCTGAGAAGTTTGGGCAGTGAAGTTTGTGCAGGATAATTG
CTCGCCTGGTACTCTTGAAGTCCACCTCGTTGTCCCTGTTGCTGTCCAAGTTGCTCATC
AGCTTCTGGAAGCAGCTTCACCTGTCCTTTTCCCAAGAAGCTGGGCAGCTCCCGGGTC
AGCAGCTCCTTTAGTTCTGACTTGTTGAGCTTGAACCTGTCACCCTCTTGCCCGAGTAC
CTGCCCC

Sequence 1228

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGA
AGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAA
AGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGAAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGGTATGGCAAAAGAT
TGGACTAAGACACTGGCCATACCACTGNCAGGGTTATGTTAACACCTGAATTGCTGGGTCT

TABLE 1
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TTGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAAATGGGGGG

Sequence 1229

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTG
AAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAATNAACCAGAAATCAAGGGNGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAG
CAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAAC
AAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATT
GGACT

Sequence 1230

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGGTCTTC
TAGTCCGGTAACAGAGGGCCTGCCCCGACAGCTTCTGCTTCCGGGTACGCCTTGACA
GCGGCTTCAACCCCCACCTCAGCCCAGCAATTCGTTTGGAGCATGTGAACACCTTGAGC
CTTGATGAGTTCAGTNTGTGGTATATTATGCAGNGCNTTCAGNGAAAATNCTTTTNTN
CGGGNNTTNAANNAAAAAANANTNNGGTGCCATGNTNTTNNCCCCNNNNNTNNGGGGGGG
GCCCCCTCAAANGGGGGGGGGNACTATNANNNNCCCTNTTTTGGGGNNCNAANTNN
ACNCCNTTNTTNGGGCCCCNTTTTGGGGNAAAAAAACCCCCCTNNGGGGGGG
GTATTTTNTTTTNGAAAAAAAGGCCCGGGGNGACCCCCCNGGTGGGNTTAN
ANAAAAAAANTCNCNNNTTNTTTTAAAAA

Sequence 1231

AGGTACGCGGGGCTTTCCGTGCTACCTGCAGAGGGGTCCATACGGCGTTGTTCTGGATT
CCCGTCGTAACCTAAAGGGAAATTTTACAATGTCCGGAGCCCTTGATGTCCTGCAATG
AAGGAGGAGGATGTCCTTAAGTTCCTTGCAAGCAGGAACCCACTTAGGTGGCACCAATCTT
GACTTCCAGATGGAACAGTACTCTTGGAAGTCCACCTCGTTGTCCCTGTTGCTGTCCAAG
TTGCTCATCAGCTTCTGGAAGCAGCTTCATCTGTCTTTTCCCCAAGAAGCTGGGCAGC
TCCCGGGTCAGCAGCTCCTTAGTTCTGACTTGTTGAGCTTGAACCTGTCACCCTCTTG
CCCGAGTACCTGCCCC

Sequence 1232

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGAAA
CAAAAAGGAACCAGAGGCCACTTGTATATAGGTCTCTTCAGCATTATTGGTGGCAGA
AGAGGAAGATTTCTGAAGAGTGCAGCTGCCTGAACCGAGCCCTGCCGAACAGCTGAGAAT
TGCACTGCAACCATGAGTGAGAACAATAAGAATTCCTTGGAGAGCAGCCTACGGCAACTA
AATGCCATTTACC

Sequence 1233

GCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAANTGAAGTGTGAAGACAAGGCC
ATCCACCACTTTATAGAGGGNGTAAAAATAAACCAGAAATCAAGGGAGAAAAGATG
AAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAG
GCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAA
GACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTNATCCCTTCAGCATCAAGCTGGAATGG
GAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTNCT
CCCCAAGNTTGGTATTCAAATATGTAATGACTGNTATTGGCAAAA

Sequence 1234

GCNATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACTTTATAGAGGGTGTAATAATAAACCAGAAATCAAGGGAGAAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGC
AGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGA
AATTCCTNCCCAAGTTNNGTATTCAAATATGTAATTGCTGGTATGGCAAAAGATTGGACT
AAGACACTGGCCCTACCACTGGACAGGGGTATTNTTAAACCCCTGAATTTGCTTGGGT

TABLE 1
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CTTTGAGAGAGCCCCAAGGGGGTTTTGGGAGAGGGGACCCANAATTGGGGGGTAGGTC
Sequence 1235
TGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGGCCATCCA
CCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGA
CAAAGTCAAAAAATTGCCAAATGCCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTT
TGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACT
CTGAGAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAAGATGTGGTGCCCACTAGGCTACTGCTTGAAAGG
Sequence 1236
TGGACTCCACCGCGGTGGCGGCCGAGGNACAATACACTAGAAACCAACATAATGTATTTT
TTTTAAACCTGTGNGAAAAATAAATGTTCCACNAGTAGGGATAGGGGAAAAGNAACCA
AAAGAGAGAAAGAGAAAGGAATGCTGGTTNATCTTTGTANGTNGTAATCGAATGGAGAAA
TTTGCAGTATTTTANCCACTATTAGNGAAATTTTTTTTTTTTTTGTCAAATGANAGACT
GGAACCTCTGTTCAANATGCTTTNATTGNAACTCTGGTTTTGAAGACCGGGNNNGNAAA
GCAANNAAAAACGTNGGGAACCCCTNNGATGGACNTAAAGGGGCNNTGGNNGCCAAAGGG
ACCTTGGGGGAAAANGGTCCACTTTGAATANANAAGCATGGGGNNGGGNGNATTTTTCCC
CCCCCTTTTAAAAANATGGTNTGGAATAATTTTAAANNGGNATATTAATAAACACCTTT
NTT
Sequence 1237
GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTGTGATATCCACATAT
TTTCGATAAAAAATTCAAAGCCAGGCGAATGTGGATTGGAATAAAGACATAGGCAGTGTA
TACCACCATAGCAATAATGGTTAGTAAGATGGTGTTAAACATAGATCGCTCCAGGGCTC
TAAACAGCACAGCAGCTAATGATTTGGTATTGATAGTAGAGCCAGGAGAAATATTCCTT
CACACGCCTCAAATCCATGGTTGGCTCCTTCAAGCTGCAGTAAGTTTGTCTAAGAAAGT
CCAGGTCTGGTTCTTCAGCCTTGCTCCTTCGCGAAATGATCCTGTGTGGGTAGTTCTCC
TCTCTGGGTTGCTGTTTCTCATCTCCAGTTGGGTGTATCTCCCTGCGGCTTAGGTGAG
CGCCGAGGCTTTGGC
Sequence 1238
AGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGTGTGA
AGACNNTGGCCATCCACCCTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAG
CAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAAC
AAGCAGATGAAGACTCTGAGAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAA
GCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGGTATTCAAATATGTAATGACTGGTATGGCAAAAGAT
T
Sequence 1239
AGCTCCACCGCGGTGGCGGCCGAGGTACGCGGGGGGCAGAAGAGGAAGATTTTTGAAGAG
TGCAGCTGCCTGAACCGAGCCCTGCCGAACAGCTGAGAATTGCACTGCAACCATGAGTGA
GAACAATAAGAATTCCTTGAGAGCAGCCTACGGGNAACTAAAATGCCATTTACCTGGA
ACTTGATGGANGGGAGAAAACTCCTTGGAATGATTTTGAAGACAAAAGTTATTTTTACC
CGGCACTGAAGATTTNCAGCAATCCGTTGGAATNTCAAAGGCCACCAAANGGTGCCAA
CNCCTACATGNGCNCCTATCNTAAANAGGCACCCCTCCAANAGGGGGNCNAATAAACGNA
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GTTTTAAANTNCCTACGGCCAAAGGNAAGCCATTGGCNTGNACCCCAAGGGCCAAGGAAA
AATCCANNTAAAAAGNTTCTTGGNGTCCACCCNTGGGG
Sequence 1240
AGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGG
CCATCCACCCTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGA
TGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTG
AGGCTTGCATGTCTTGGCATTCTTTCAGGGAGCCTGAATTGAAAAAA

TABLE 1
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Sequence 1241

AGCTCCCCGCGGTGGCGGCCGCCCCGGGCNNGGTACGCGGGGGAGACATTCCTCAATTGCTT
AGACATATTCTGAGCCTACAGCAGAGGAACCTCCAGTCTCAGCACCATGAATCAAACCTGC
CATTCTGATTTGCTGCCTTATCTTTCTGACTCTAAGTGGCATTCAAGGAGTACGGGAAGG
CGAAGAAAAGAATAGAGAAGATAGGGAAATTAGAAGATAAAAACATACTTTTAGAAGAAA
AAAGATAAATTTAAACCTGAAAAGTAGGAAGCAGAAGAAAAAAGACAAGCTAGGAAACAA
AAAAGCTTAAGGGGCAAAAATTGTACCTTCGGCCCGCTCTAGAAGTCTAGTGGGATCCCCCG
GGCTGCAG

Sequence 1242

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACCAAATGAAGTGTG
AAGACATGGCCATCCACCACTTTATAGAGGGTGTAATAAATAAACAGAAATCAAGGGAGA
AAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAA
CAAG

Sequence 1243

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAATAAACAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGC
ACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCAT
CAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTANGCTACTGCTGAAAGG

Sequence 1244

CCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATA
GAGGGTGTAATAAATAAACAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAA
AAATTGCCAAAATGCCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCCTG
GCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTAT
TCAAAATATGTAATGACTGGTATGGCAAAA

Sequence 1245

TGGTACTGTCTAAAGTCATGACAGCCCAACAGGTGATGTTTTACTGGATGAAACTCTGAAA
CACATCAAAGCAACTGAACCCACAGAACTGTCCAACATGGATAGAGCTACTCACTGGT
GAGACCTGGAACCCCTTCAAATTACAGTACTGTTCTGTTGGCCGAGTGGAGACTGGTGT
TCTCAAACCCGGTATGGNGGTCACCTTTGCTCCAGTCAACGTTACAACGGAAGTAAATC
TGTCGAAATGCACCATGAAGCTTTGAGTGAAGCTCTTCTGGGGACAATGTGGGCTTCAA
TGACAAGAATGTGTCTGTCAAGGATGTTCCGTGCTGGCAACCGTTNCTGGTGACAGCAAA
AAATGACCCCAACAA

Sequence 1246

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAATAAACAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTGCATGTCTTG

Sequence 1247

AGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACCAAATGAAGTGTGA
AGACAAGGCCATCCACCACTTTATAGAGGGTGTAATAAATAAACAGAAATCAAGGGAGAA
AGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATGCCGACTTTCTAAAAATGGAGC
AGATTCTGAGGCTTTGQATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACA
AGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATAGNAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAG
CTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATT

TABLE 1
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GGACTAAGACACTGGCCATACCACTGGACAGGGTTTATTGTTAACACCTGAATTGCTGGG
GTC

Sequence 1248

GAGCTCCCCGCGGTGGCGGCCGNGGTACATAAAACATTATTCCTTCCTTGGGCTAAAAAC
TTTTGCCACCTACATTAAGCTAATATGCCTGNTTACTGTTTTAGAGAACTTATTTA
TTAGGGCAGTTCGAAGCTCAAAAATACGCTAACTGGCACCTTGTTAGCTACATAAAATG
CACCTAGACCCGAACTTACTAGACTCATTATAAAATTTTNTTTAAGGTGTCCACGCAG
NCCCTGGTCACACTTGAAGCAGTCCGGAGAAATATNAGCCCTACCCAGTAATCCCCAGA
AGGAACTTACACTTTTTTTAATCTTTTCTACAACNCAATTTTATAAATAAAAAAGAC
ANAAATGTCAGGCCTGTGAGCTGAAGCTTAGCCAT

Sequence 1249

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACGCGGGGAGTGG
GAAGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGA
TACACCCAACCTGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCCACACAGGA
TCATTCGTGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTCTTAGGACAACTTAC
TGCAGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTC
TACTATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCCGATCTAT
GTTTAACGCCATCTTACTAACCATTATTGCTATGGTGGTATACACTGCCTATGTNTTTAT
TCCAATCCACATTCGCCTGGCTTGGGAATTTT

Sequence 1250

GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAAGGC
CATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAAGAT
GAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGA
GGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGA
AGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGG
GGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCC
TCCACCAAGTTGGTATTCAAATNTGTAATGACTGGTATTGGCAAAA

Sequence 1251

CTNCTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAA
GACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAA
GAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCA
GATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAA
GCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAG
CTGGAATGGGGAATGAAGAATGGAAGAATNGTGGTGCCCACTAGGCTACTGCTGAAAGGG
GAGCTTGAAATTCCTCCACCAAGTTTGGTATTG

Sequence 1252

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATCTTGAGAAGGATTT
GAAGGACAAGTTTGTGGCCCTGACCATAGATGATATCTGCTTCTCGCTCAACGACAACCTC
ACCAAACATCAGATATTCTGAGAACGCCGTGAGGATTGAGCCAACTCCGTGAGTCTGGA
AGACTGGTTGGACTTCTCCAGCACCAATGTGGAGAAGGCTGACAAGCAGCGGAACAACCTC
CCTGATGCTGAAAGCCCTGGTGGATCGAATCCTGTCCCAGACAGCCAATGGATCTGTGCA
AGCCAGTGTGATTGTGGTGGACACCGGCATTCAAGAATGGGCCTGAAGGGATCAAAGGGA
TGCCAGGGACAAGCTGGGCTTGATCATCTGGCCCAAGGTATTNGGAAAGAGATTGCTTCC
CAGGGAAGAAAA

Sequence 1253

ACTNAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGAC
AAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAAGAA
AAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGA
TTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGC
AGATGAAGACTCTGAGAGGGGTTTNGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCT
GGAATGGGGAATGAAGAANGNAGATTGGTGGTGGCCCACTAGGCTACTGCTGAAAGGGAG

TABLE 1

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CTGAAATTCCTCCCCAAGGTTGGTATTCAAAAATATTGTAATGAACTGGGTATTGGCAA

Sequence 1254

CCGCGGTGGCGGCCGNGGTACAATGATTGTCATCTCAGTAAAAGGTCTATTATCTAACTT
GCCAAACTTGTCTTACTGAGAGCCCTAAGGAACTAAAAGTCCATAATGCCGTGCACAGCT
TGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAGTTCTCAGCAGGCC
TGGCTGAAGGCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAATAGCAA
TAAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCACCTCTCCCGGATCAG
GCTTCCATTGCTCACGATGCTCACGCTGGGCAGCCGCAACTCTACTTGCAGAACCTCAC
CAACTTGCCAGGTATTCTCCCGGTCTTGA

Sequence 1255

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCATGGTACGCGGGGG
GGTGGAGAGAGGCCTCTAGACTTCAGTTTCAGTTTCTGGCTCTGGGCAGCAGCAAGAAT
TCCTCTGCCTCCCATCCTACCATTCACTGTCTTCCCGGCAGCCAGCTGAGAGCAATGGGA
AATGGGGAGTCCCAGCTGTCTCGGTGCCTGCTCANAAGCTGGGTTGGTTTATCCAGGAA
TACCTGAAGCCCTACGAAGAATGTCAGACACTGATCGACGAGATGGTGAACACCATCTGG
GACGTCTCGCAGGAACCCGAACAGTTCCCCCTGGNGCANGGAGTGGCCATAGNGGGCTCC
TATGGACGGAAAAAC

Sequence 1256

TGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACAANGGCCATCCA
CCACTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGA
CAAAGTCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTT
TGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACT
CTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAAT
GAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCT

Sequence 1257

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGACA
AGGCCATCCACCACCTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAGAAAAGAAA
AGATGAAAGACAAAGTCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGAT
TCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCA
GATGAAGACTCTGAGAGGGGTTTGGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTG
GAATGGGGAATGAAGAATAGAAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTG
AAA

Sequence 1258

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACCTTTATAGAGGGTGTAATAAACCAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAAAGTCAAAAAATTGCCAAAATGCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGC
AACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGAAGATTGTGGTGCCCACTAGGCTACTGCTGAA
AGGGAGCCTGAAATTCCTCCCCAAGGTTGGGTATTCAAAAAATATGTAATGACTTGGTATG
GCAAAAAGATTGGGACTAAAG

Sequence 1259

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCTTTGTTT
TGGCACACTTTTCTGACAAACAGCCAGTGTTCTCAATACATAAATACTAGTCCACGTTA
ACAAATAGCATATGAGACCGCTCTCCGTAAAGATGCCAGATTGGATGCAAAATGGACTG
GAAATACCTTGGAGGGTTTCAAAAAATAAGACAAAGGGCAAAGGAACTTTGCCAAAGGA
GATGGAGAGCAATTCTTTAAAGATAGTGGGAGGGAGGAAGCAAAGAGCTCATAAATACAA
GCCTCTTAAATGGGACGCATTTGCCTCGCGCTCTGGGGTGTCTGCAGCTCAGCNTTGG
TGCCCCACACGGGACACCCGACTTTT

Sequence 1260

TABLE 1
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TAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTTCAATGTCATT
AACCATAAATGAGCATTTACAATCTGGATTAAATGTCACATGGTATTAAGTCTACACTTA
GAGTAATGCTTTTACTGATTTTTAAAAATATATGCATATGTTTAGTGATCGAGAAAAGTG
AAATACTGGAGTACTTTTTTTTTTTTTTTTTTTGGCTTGATGAGTAGGTGAGTTTATT
GGGACTTACACACAGGTCAATCCTGGGCGGCGACAAGACAGCTCTAGAGATCTGAGCTTC
CTCCCAATGCTAAACTGCTTTCATGCTAATTTTCTGACTGTTTACTTACCCGGGGTAAGA
GCGATGGGGACTGTTTTTATTGG

Sequence 1261

TNCTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAAGT
GTGAAGACAAGGCCATCCACCACCTTATAGAGGGTGTAATAAACCAGAAATCAAGGG
AGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATG
GAGCAGATTCTGAGGCTTTCATGTCTTGGCATTCCCTCAGGAGCTGAATGAAAAATGC
ACAAGCAGATGAAGACTCTGAGAGGGGTTTTGGAGTCTGGAAGCCTCATCCCTCAGCA
TCAAGCTGGAATGGGGAATGAAGAATAGGAGATGTGGTGCCCACTAGGCTACTGCTGAAA
GGGAGCTGAAATTCCTCCACCAAGGTTGGGTATTCAAATATGTAATGACTGGTATGGCA
AAAGATTGGG

Sequence 1262

TGGCGGCCGCCGGCAGGTACGCGGNGCAGAAGAGGAAGATTTCTGAAGAGTGCAGCTGCC
TGAACCGAGCCCTGCCGAACAGCTGAGAATTGCACTGCAACCATGAGNGAGAACAATAAG
AATTCCTTGGAGAGCAGCTACGGCACTAAATGCTTTCACCTGGAAGTTGATGGGAGGG
AGAAAACCTCCTTGGATGATTTGAAGACAAAGTATTTACCGGACTGAGTTTCAGAATCG
TGAATTCAAAGCCACAATGTGCAACCTACTGCCTATCTAAAGCACCTCAAAGGGCAAAC
GAGGCAGCCCTGGAATGCTTACGTAAAGCTGAAGAGTTAATCCAGCANGAGCATGCTGAC
AAGGCAGAAATCAAAGTCTGGTCACCTGGGGAAA

Sequence 1263

CGAGGTACCCAGGCCTGCAAATCTCCTGGCAGGATGGTCAGGAACTGCTCTAGCACCAGC
AGTTCCAGAATCTGTTCCCTGGTATGGATCTCTGGCTTCAGCCACTGACAGCAGAGCTCC
CGGAGGCGGCTCAGTGCCCTCGCGAGGTCCAGGAGAATCCTGGTAGCAGAACTGCCTAAAA
AGCTGCCTGCAGAGCTCCTGCTTAAGGAGTTCACTTCTCTGTAAGCAAGTGCTCTGCCA
TGGATAAATTCCTCCTCTTCTATCTTCACTATCAGAAGTCCTTCATCCTCTGGAGAGTTC
TGGGCTGCAGCTTCTTTGGTTCTGTAGCCATCTCTCGGACAGGGCTGATTCCGATCGGA
CACTTCCGGTGAAGGACTGAGCGGCGCTACACTTCAAGAATCCGTCCACAGGGACTTG
TGAGTCTGCGCAGAAGGCGGGATGCCTTTGACTACGATTCCAAGAATCCTTCTGGGTC
TCTTCGGGCGCAGACTTTTCGCCAAAGTCCTGAAGATCTCAGGGCTGAAGGAGGGGGCA
TCCTTCTTCTTATTGNAGTAGTGTGCTTGTCTAAATAACAGAAGGGACTCCTGAAAAGA
AAATGACGTTGGCCCCGGCGCGGGGGCTTACGCCTGCAAGTCCACACTTTGGGAGGCCGA
ACNGGCNGATCACGAAGGTCAGGAGATCGANGACTATCTGGGTTACGCGGNGACACCCTG
NGTTTCTTAAATCCANAAAAAAAAAAAAAAAAA

Sequence 1264

GGCGAATTGGACTCCACCGCGGTGGCGGCCCGAGGTACAGAGATTTATAATGTGCTGCTC
TAGGTCCTATCGGGTAAAGGGATCAGCAGATGTGAAGTCAAGAGTCTCCTGTAAGATTTG
ACTTCTTGGAACATATTTAATCCTGGGCCTCCTNTTCAAATCACCTATTTCTTTA
GTTTTTGCAGTGATACTGTGTGTTGCTTCTAACAGAGGTTCAAGTTTACAGCCTTTCCC
TCAAGTGTCTTATCCTAAAAGTAAACCTAGATGATCTAAGGTGGTGGNTTCAACAGGG
TGCAATTTGCCTCCTATACTCGCAACACCCAGNGACAGTTGGCTATGTCTNGGAGACAT
TTTTGNGTTNTCACACCTGGANNNAGGGTGGGGGAGGTGGNGCTAATGACANCAAGNTGG
CCNTAANCCAATNATGCTGATANAAATNCTACANTGCACAAGGATAGGNTCCACANAAC
ANAAGNCTTANCCAAACCCCAATACTAACAAT

Sequence 1265

CCGCGGTGGCGGCCCGAGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTT
GCCAAACTTGTTTACTGAGAGCCCTAAGGAATAAACTGCCATAATGCCGTGCACAGCT

TABLE 1
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TGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCTTCCAGTTCCTCAGCAGGCCT
GGCTGAAGGCCAGGAGGGAAGGAAATATAAGAACCAACAATAAAATAGCAATAGCAAT
AAGAAGAATGCCATCCCATGGAGCACACCATAATTCTGGAACCACCTCTCCCGGATCAGG
CTTCCATTGCTCACGATGCTCACGCTGGGCAGCCGCAACTCTACTTTGCAGAACCTCACC
AACTTGCCAGGTATTCTCCCGGTCTTGAAGAAATGGCTCTCCACCTGAAAAGTTGATC
TTCTCCATACCAGCTTCTTAAGCAAAAGCAATCCTCTCTTTGCTTCTCAAGGGGCAGC
ACAAAGGATGTTTTGGCTGTGTGGAAACAGAAGCCCGCATTTGTAGTTGCACTGGCGAGT
GAAGTGATAGTTGACGCTGGTTGGGGTGGT

Sequence 1266

CCGCGGTGGCGGCCGCCCGGGCAAGGTAAGTCTGCTAACTTTGACGCCAGCATCTCTGAAAG
ATCCCCATCGAAGGCCGGTCATTGCAAATACAGGCTGTTCTTTTACCCTTGATCTGCA
AGACATCAAGTGGAAGTGTCTCTCTTTCACAATGGCAAGTGTTGGCATCAGTAATATGTT
GGACTTTGTTTCCACTTTCCGCAAGAGGGTATGACTCAAACCTACTGGTCTCTCCAGTG
GGATAAATCCAATGGGAATCTTACTGAAGGTAGCCTCATCTGTTCTGTCGAAGAACACCAA
GTAACAACCTNCTGCAGTGTCCCATCTCCTTCTGNAACAATGGATCACATTCGGNGTT
TTCCATCAGTTNCAAGGAGGTTTNTTNGGCTTGGGCCCTTAANAAATCTGNGCTTAAACA
AAAAGGCCCNATTCTTCCCAAATAAAAANGGAAAAANTCGGGGGCCNCAATTTTTTTT

Sequence 1267

CACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGT
GAAGACAAGGCCATCCACCCTTTATAGAGGGTGTAATAAACCAGAAATCAAGGGAG
AAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGA
GCAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAA
CAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCA
AGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGA
GCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGACTGGGTATGGCAAAAGA
TTGGACTAAGACACTGGCCATACCACTGGACAGG

Sequence 1268

GGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCCTTTATAGAGGGTGTAATAA
ACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGC
GACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAGC
TGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCC
TCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAG
GCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAATGA
CTGGTATGGCAAAAGATTGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAA
CACCTGAATT

Sequence 1269

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTCTACAG
AGATCCTGAAGAGATTGAAAAAGAAGAGCAGGCTGCTGCTGAGAAGGCAGTGACCAAGGA
GGAATTTCAAGGTGAATGGACTGCTCCCGCTCCTGAGTTCACTGCTACTCAGCCTGAGGT
TGCAGACTGGTCTGAAGGTGTACTCTTGGTTTATCAATGGGACGTTCCAGCAATCCACAC
AAGAGCTCTTTATCCCCAACATCACTGTGAATAATAGCGGATCCTATATGTGCCAAGCCC
ATAACTCAGCCACTGGCCTCAATAGGACCACAGTCACGATGATCACAGTCTCTGGAAGTG
CTCCTGTCCTCTCAAGCTGTGGCCACCGTCGGCATCACGATTG

Sequence 1270

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCCTTTATAGAGGGTGTAATAA
AACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAATG
CGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAG
CTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGC
CTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGGAGATGTGGTGCCCACT
AGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATATGTAAT
GACTGGTATGGCAAAAGA

TABLE 1
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Sequence 1271

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCTCAT
TTTTATTTTAAAAACCATTCAGCACATTTATCTTATGTAACATGCAGAGCATATATCTAT
CTGTATTTTAAAAATTTTCTGTACTCATTGATACATAGTACTTCCTTGATGTTGTTGG
AGTCCGTGAGAAACATGGCGACTCGATCAATGCCCATGCCCCAGCCAGCTGTGGGGGGCA
GCCCATATTCCAGGGCAGTACTCAAAGGTGATATTTGCTTTTTTCAATGCTTCAGGGGAA
AAATCCTTTTCTTTA

Sequence 1272

TAAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAANGACA
AGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAA
AGTAGAAAGACAAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATT
CTGAGGCTTTGCATGTCTTGGCATTCCCTTCAGGAGCTGAATGAAAAATGCAACAAGCAG
ATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAAGCCTCATCCCTTCAGCATCAAGCTGGA
ATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAA
TTCTCCACCAAGGTTGGTATTCAAAATATGTAATGACTGGGTATGGCAAAAGATT

Sequence 1273

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGTGGTGACGTGGTTCCCAAAGATGTC
AATGCTGCCATTGCCACCATCAAAACCAAGCGCAGCATCCAGTTTGTGGATTGGTGCCCC
ACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTG
GCCAAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAA
AATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAA
AATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCCCTCA
GGAGCTGAATGAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGG
AAGCCTCATCCCTTCAGCATCAAGCTGGAAT

Sequence 1274

ATCCCCGGCGNNGGCNNNNCGCCCGTTTCAAGTACTCTTTGTTTTGGCACACTTTTCTGAC
AAACGCCAGTGTTCTCAACACATAAATACTAGTCCACGTTAACAACAATAGCATATGAG
ACCGCTCTCCGTAAAGATGCCAGATTGGATGCAAATGGACTGGAAATACCTTGGAGGGTT
TCACAAAATAAGACAAAGGGCAAAGGAACTTTGCCAAAGGAGATGGAGAGCAATTCTTT
AAAGTTAGTGGGAGGGAGGAAGCAAGAGCTCATAAATACAAGCCTCTTAAATGGGACG
CATTTGCCTCGCGCCTACTGGGTGTCTGCAGCTCAGCTTGGTGCCCCACACAGGACACCG
ACTTTAAGTGGCTGCCTTTGCAAGGCTGAGAGGCCATGGAGGGGTTGATGCCTGAAGTGT
CAGCGCCATCTAGTGGAACATGGGGCATGGCCC

Sequence 1275

GGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCC
ATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATG
AAAGACAACTGCAAAAAATTNCCAAATGCCGACTTTCTAAAAATGGAGCAGATTCTGA
GGCTTTGCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAGCAGATGA
AGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGG
GGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTNC
TCCACCAAGTTGGTATTCAAAATATGTAATGACTGGTATGGCAA

Sequence 1276

AGGTACAAAATTATCATCATTTAGAGTTGATTTTTTACCAGCCCTGAATTTTCAAAC
TGTAATATGCTGTTTCACAATCTTTTTATTAATTAATGATTCCAGTCTGCAAAAT
GAGCCATAAGACTTTGCTNCTGTTTGNATANGATNCATNTGGANATTGGGGGNGGGNAA
ACCATANGTAAGGTTAAACCTATCCGTACCTGCTTCATGTAAAGACTCCACCATTTGN
TTGGATNTATTTTTTCTCCAGGCNACTAGTAAGAAAAAAGGTGAACAAAGGTGGATTN
CATCCCTNNCAAANTGGGCCCTTNTGGCNCAATTCTTTTTTCANTAATCCTATGGTANAC
CNNTTTTGTAGATTACCTTGGTGGTNGAATTTNAGCNGTNTTGGNGGCNTAATTNNNA
AAAAATCTTTGGGGATTTAAAAATTTAAANCAAAAAAACCAACCAATAAAANTTCTAA
TCCACCCNTGNGGAAATTTATTTTGAAAAGGAAAAATTTTCAGGTTAAAAAACAAAGGG

TABLE 1
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ANTGGNTGGTTCCTTCCATTAGGTTTAAAGGGGAGGAGGNANNATTAAAAAAATTAAAA
AAATTGGTTCATTTTAAAACAAGGTTTNGAAATTTNAAGGGAA

Sequence 1277

AGGTACAAAATTATCATCATTTAGAGTTGATTTTTTTACCAGCCCTGAATTTTCAAAC
TGTAATATGCTGTTTACAATCTTTTTATTAAATTACTTAATGATTCCAGTNTGGCAAAT
GAGCCATAGACTTTTGCTCTGCTTGTTATAAGATCANTTGAATTGGGNGGGGGGANA
CCANTAGTTAAGNCTAAATCTAATCCGGTCACTTGGCTTCATTGTAAAAGAACCCACAA
TTGGTCTGAATTAATTTTTTGGCCAGGCACCANGAAAGNAANATNGNTGTACCAAAGNTN
GAANTACATTCTTGGCAAANTGGGGCCCTCTTGGCCCAAATCCTTTTTTCCAATTATC
CTTATTGGTTAAACCCCTTTTTTGGTTAAGTNTNACCTTGGGTGGTTGGAATNTTTAAA
GCCGNGCTTGGNNGGCCTTAATTTTGGTAAAAAATTTCTTTTGGGGGATTTTAAATTTA
AACCCAANAANAACCANACCAANAAATANTTCNTNATTNCACCCCTTGGGGNAAATTNA
TTTTGGGAAAAAGGAAANATTTTCNAAGTTTAAAAAACCCAAAGGAANTGGGTNGTTCC
TCCAATTANGGTNTTAAAGGG

Sequence 1278

AGGTACATTTACACAATATTAACACTAAAAATCTGTGTTTTTTTAAACACCATAGAAGT
CAAACCACAAAAACCCAGGATCTTGTTTTAAATGTGTTTATGAAGACTGCTGCTGAGCTC
AAAAGCATTGCAGGTAATCATGACCACCTAGATGAAAGCTGGATGTTTGAAAACTCCTTC
ATGTCCAATGAATGTAATTTTTTACCTCATCCCCAAGGTATTCTCCCATACTTTGTTT
TACTTTTGACCTTCTTTTTTTTTTGGGNCACCTCTTTTCATGGCATAAGGGCCTNGACT
TGAGGGGGTACAGGTTCTTTTNGTGGTNTAAAAGGAATTACTTTTCATTAATGAACCTC
CTCCTTGGTTTCCTTTAATTTCCCTTTAAATTTTCTTCAATAATTGGTAAATNATTTT
TTTTTCNTTTTTTAAGNGGACC

Sequence 1279

NCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAATGAAGTGTGAAGA
CAACGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACAGAAATCAAGGGAGAAAG
AAAAGATGAAAGACAACTGCAAAAAATTGCCAAATGCGACTTTCTAAAAATGGAGCAG
ATTCTGAGGCTTTGCATGCTTGGCATTCTTCAGGAGCTGAATGAAAAATGCAACAAG
CAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCT
GGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTG
AAATTCCTCCACCAAGGTTGGTATTCAAAATATGTAATGACTGGTATGGCAAAGATT

Sequence 1280

GTGGCGGCCGAGGTACCAANTGAAGTGTGAATGACAATGGCCATCCANTANTTTATAGAG
GGTGTAAAAATAAACAGAAATCAAGGGAGAAAGAAAGATGAAAGACAACTGCAAAAA
ATTGCCAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTTGCATGTCTTGGC
ATTCCTTCAGGAGCTGA

Sequence 1281

CCGCGGTGGCGGCCGCTCGGGCAGGTACCATTCCTCTACATCCATTTGGTAGCAGAACCT
CAAGTGTAAGCAGTCAGTGTAGCATGAATATGAACTGGCTCAGTTTATCACTTCCTGTTT
NGACCTGAAGCACCACCCAGCTATGCAGAAGTGGTAACAGAGGAACAAAGGCGGAACAAT
CTTGACCAAGTGAGTGCTTGTGATGACTTTGAGAGAGCCCTTCAAGGACCACTGTTTGCA
TATATCCAGGAGTTTCGATTCTTGCCTCCACCTCTTTATTAGAGATTGATCCAAATCCT
GATCAGTCAGCAGATGATAGACCATCCTGCCCTTTTGTGGAAGGAACACTTGTTGA

Sequence 1282

GAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACATAAAACATTATTCCTTCCTTGGCC
TAAAAACTCATCGCCACCTACATTAAAGCTAATATGCCTGATTACTGTTTTTAGAGAACT
TATTTTATTAGGGCAGTTCCAAGCTCAAAAAATACGCTAACTGGCACCTTGTTAGCTACAT
AAAAATGCACCTTAGACCCGAAACTTACTAGACTCATTATAAAATTTTCTTTAAGGTGTC
CACGCAGTCCCTGGTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTACCCAGTAAT
CCCCAGAAGGAACTTACACTTTTTTTAATCTTTTCTACAACCTTCATATTTATAAATA
AAAAGACAAAAATGTCAGGCCTGTG

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Sequence 1283

GGTGGCGGCGCCGNCAGGTACCAAATGAAGTGTGAAGACCNGGCCATCCACCACTTTAT
AGAGGGTGTAAAAATAAACCAGAAATCATGGGAGAAAAGAAAAGATNAAAGACAACTGCA
AAAAATTGCCAAAATGCGACTTTCTAAAAATGAGCAGATTCTGAGGCTTTGCATGTCTTG
GCATTCCTTCAGGAGCTGAATGAAAAAATGCAACANGCAGATGAAGACTCTGAGAGGGGT
TTGGAGTCTGGAAGCCTCATCCCTTCANCATCAANCTGGAATGGGAATGAAGAATAGAG
ATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTAT
TCAAAATATGNAATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCATACCACTG
GACAGGNTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCNAGGAGTTCTGGGA
NAGGNACCACATTGGGG

Sequence 1284

CGCGGTGGCGGCGCCCGGGCAGGTACCCCGGGAGAGCCCGCTTCCCCCTCCTCCCTGTG
CTGTCTGCACCCGAGGAGAGCGGCCTGCCCGGAAGTGGGCCACCATATCTGGAACTACA
GTCTATGCTTTGAAGCGCAAAAGGGAATAAACATTAAGACTCCCCGGGGACCTGGAGG
ATGGACTTTTCCATGGTGGCCGGAGCAGCAGCTTACAATGAAAAATCAGAGACTGGTGCT
CTTGAGAAAACTATAGTTGGCAAATTCCTTAACCACAATGACTTCAAAATTTAAAA
AATAATGAGCGTCAGCTGTGTGAAGTCTCCAGAATAAGTTTGGCTGTATCTCTACCCTG
GTCTCTCAGTTTCAGGAAGGCAACAAGCAAATCTCTGCAAGTGTTCAAAAAATGCTGAC
TCCTAGGATAGAGTTATCAAGTCTGGAAGATGACCTCACCACACATGCTGTTGATGCTG
TGGTGAATGCACCAATGAAGATCTTCTTGATGGGGGAGGCCTGGCCCTGGCCCTGG

Sequence 1285

CGCCGGGCAGGTACCAAATGAAGTGTGAAGACANGGCCATCCACCACTTTATAGAGGGTG
TAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAACTGCAAAAAATTG
CCAAAATGCGACTTTCTAAAAATGNGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCT
TCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTC
TGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGAATGAAGAATAGAGATGTGGTG
CCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAATA
TGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGG

Sequence 1286

TCGGGCGAATTGGAGCTCCCGCGGTGGCGGCCCGCCCGGGCAGGTACAGGTAAGATATA
CTGGAGTCACAGAGCAATATGCATTAACAGGATACAACAGTTCATAAAAACTGAGTAACT
ATGCACACAAATTTCTTAAACAGCCACCTAAAGAGAAAATGCACAGATGTATGGTGGAAA
CTGTATCTAACACTGAACTACTACAGGACTCCATCAATGAGTCCAACTTTTAGTGATAA
AAAACACTGTACACTACATGAAGAACCATATGTTTATAATTATCCAAATAAAAATGAAG
TTATTAACCTTCAAGATAAATATGGTAATTTGCATTGAACCGATGATTTTACAAAATCTG
CAAAGGTCAAAATTTTAAAAGATGGCTGAACAGTAATTGCAGCATCTAATAAAAACGCAG
CTCATTACCGAGCAAACGGTTTTAATTAATAAATTCAAAAGGAATAATCCTGACAGGAGAA
ATAAAAAATAGATGTCAAAGAAGATAAAATTATTTTCAAAGGAGTAGTAACTCAAGTT
TTAACACC

Sequence 1287

CCGCGGTGGCGGCGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCA
CTTTATAGAGGGTGTAAAAATAAACCAGAAATCAAGGGAGAAAAGAAAAGATGAAAGACAA
ACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGNGCAGATTCTGAGGCTTTGCAT
GTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAG
AGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGAATGAAGA
ATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGT
TGGTATTCAAAATATGTAATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCATA
CCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGTT
CTGGGAGAGGGACCAGATTGGGGGGTAGGT

Sequence 1288

CCGGGCAGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTGCCAACTTG

TABLE 1

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TTCAGTGAAGAGCCCTAAGGAACTAAAAGTCCATAATGCCGTGCACAGCTTGAAAAGCAA
TTAGAGTAAGCAAGATAGTTTTCTCCCTTCCAGTTCTCAGCAGGCCTGGCTGAAGGC
CCAGGAGGGAAGGAAATATAAGAACCAACAATAAAAAATAGCAATAGCAATAAGAAGATG
CCATCCCATGGAGCACACCATAATTCTGGAACCACCTCTCCCGGATCAGGCTTCCATTGC
TCACGATGCTCACGCTGGGCAGCCGCAACTCTACTTTGCAGAACCTCACCAACTTGTTCCA
GGTATTCTCCCCGGTCTTGAAGAAATGGCTCTCCACCTGAAAAGTTGATCTTTCTCCATA
CCAGCTTCTTAAAGCAAAAGCAATCCTCTCTTTGCTTCTCAAGGGGCAAGCAGCAAAAGG
GATGTTTTTGGCTGTGTGGAACAGAAAGCCCGCATTGTAGTTTGCACTGGCCAGTGAA
GTGATAGTTGACCCTGGTTGGGGTGGGGG

Sequence 1289

CCGGGCAGGTACCAAAATTGTAAGAAGAAGCTTGGGAAGCTGCCACCTCAGTATGCCCTG
GAGCTCCTGACGGTCTATGCTTGGGAGCGAGGGAGCATGAAAACACATTTCAACACAGCC
CAGGGATTTCCGACGGCTTGAATTAGTCATAAACTACCAGCAACTCTGCATCTACTGGA
CAAAGTATTATGACTTTAAAAACCCCATTTGAAAAGTACACAGGAGGCAAAAGTGTTC
ACATCATAGACTTCACTTCCAACCTCCTTGAATGTTTCACTTTTGGCTTACAGGAGAGA
CTAGACAGGAAGGCCAGGCAATGCTTAGGCAACTAAAATGAGGTTGGGGGTAATGCTAAC
GTCACCCTCACAGGGATGGCCACGGGGACTGTTATTCGCAAGCTGGTTTTCTAGGCCTGT
TAGCTGGAAGCATGGTGAGCACCATTCTGGACGCTCAGGCCGTGTCGGGCTTNAAGTCA
TCTTNCACCACACAGGTACCTTNGGGCCGNTCTAGNAACTAGTGGGATCCCCCGGGCT
GGCAGGAAATTCGAATATCAAAGCTTTATCGATAACCCGTCCGACCTTCGANGGGG

Sequence 1290

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGTTGTAATAA
AACCAGAAATCAAGGGAGAAAGAAAGATGAAAGACAACTGCAAAAAATTGCCAAATG
CGACTTTCTAAAATGGACAGATTCTGAGGCTTTGCATGCTTGGCATTCTTCAGGAGC
TGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCC
TCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACTAG
GCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAATGA
CTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCACTGGACAGGGTTATGTTAA
CACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAGATTG

Sequence 1291

AGGTCATAAAACATTATTCCTTCCTTGGCCTAAAAGTCTATCGCCACCTACATTAAAGCT
AATATGCCTGATTACTGTTTTAGAGAACTTATTTATTAGGGCAGTTCCAAGCTCAAAA
ATCGCTAACTGGCACCTTGNGTACATAAAATGCACCCTAGACCCGAACTTACTAGAC
TCATTATAAAATTTCTTTAAGGTGTCCACGCAGTCCCTGGTCACACTTGAAGCAGTCCG
GAGAAATATCAGCCCTACCCAGTAATCCCAGAAAGGAACTTACACTTTTTTTAATCTT
TTCTACAACCTCATATTTTATAAATAAAAAGACAAAATGTCGGGGCCTGTGAGCTGAAGC
TTAGCCATTGTAACCCCTGTGACCTGCACATATCCGTCCAGGTGGCCTGCAGGAGCCAAG
AAGTCTGGAGCAGNCGAAAAACCACAAAGAAGTGAACAGCCAGGTTTCTGNCTTAAC
ATTAACCCAC

Sequence 1292

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATAAAACATTATTC
TTCTTGGCCTAAAAGTCTATCGCCACCTACATTAAAGCTAATATGCCTGATTACTGTTT
TTAGAGAACTTATTTTATTAGGGCAGTTCCAAGCTCAAAAATACGCTACTGGCACCTGT
TAGCTACATAAAATGCACCCTAGACCCGAACTTACTAGACTCATTATAAAATTTTNTT
TAAGCTGTCCACGCAGTCCCTGGTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTAC
CCCAGTAATCCCAGAAAGGAACTTACACTTTTTTTAATCTTTTCTACAACCTTCATATT
TTATAAATAAAAAGACAAAATGTCAGGCCTGTGAGCTGAAGCTTAGCCATTGTAACCC
TGTGACCTGCACATATCCGTCCAGGTGGCCTGCAGGAGCCAAGAAGTNTGGAGCAGCCGA
AAAACCACAAAGAAGTGAACAGCCAGTTTCTGCCTTAACCTAATTAACCCACCTTACGAC
ATTCCACCATTATGACTTTGTCCACCATTATGACTTGTTCTGGCCTGCCCAACTG

Sequence 1293

TABLE 1
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CCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTA
AAAATAAACAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAACTGCAAAAAATTGCC
AAAATGCGACTTTCTAAAAATGACAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCA
GGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGG
AAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCC
ACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGT
AATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCATACCACTGGACAGGGTTAT
GTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAGTTCTGGGAGAGGGACCAGA
TTGGGGGGTAG

Sequence 1294

CGAGGTACCGCTGTGTCCGGGTGGGTGGTCAGAATGCCGTGCTCCAGGTGTTACAGCTG
CTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAATGTTGCCTGTG
CCCAACTGGGTTTCCCAAGCTATGTAGTTCAGATAACCTCAGAGTGAGCTCGCTGGAGGG
GCAGTTCGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAGGTGACTGC
ATTACACCACTCAGTATATGTGAGGGAGGGATGTGCCTCTGGCCACGTGGTTACCTTGCA
GTGCACAGCCTGTGGTCATAGAAGGGGCTACAGCTCACGCATCGTGGGTGAAACATGTC
CTTGCTCTCGCAAGTGGCCCTGGCA

Sequence 1295

CGAGGTACCTGTGAAGACAGCTACACCTGGTTTCCTCCCTCATGCCTTGATCCCCAGAAC
TGCTACCTTCACACGGCTGGAGCACTCCCAAGCTGTGAATGTCATCTCAACAACCTCAGC
CAGAGTGTCATTTCTGTGAGAGAACAAGATTTGGGGCACTTTCAAATTAATGAAAGG
TTTACAAATGACCTTTTGAATTCATCTTCTGCTATATACTCAAATATGCAATGGAATT
GAAATTCACCTTAAAAAGCATATGAAAGAATTCAAGGTTTTGAGTCGGTTCAGGTCACC
CAATTTCGAAATGGAAGCATCGTTGCTGGGTATGAAGTTGTTGGCTCCAGCAGTGCATCT
GAACTGCTGTGAGCCATTGAACATGTTGCCGAGAAGGCTAAGACAGCCCTTCACAAGCTG
TTTCCATTAGAAAGACGGCTCTTTCAGAGTGTTGCGAAAAGCCCAGTGTAAATGACATTGT
CTTTGGATTTGGGT

Sequence 1296

CGAGGTACAGGAGCAACCTTCTTTCCACCATTACTGGGAATTCCACCACTATTTGCTCCC
CCAGCCCAGAAATCATGATTCTTCTTCATTCCATTCAAGGACTTCGGGAAAAAGTAATCGA
AATGGTCCCGAAAAAGGTGTAATGGGTCAATAAATGGAAGTAATACATCATCTGTAATT
GGTATCAACACATCTGTACTTTTTTTTTTTTTTTTTTTTATCTAAAAGCAACATAATTA
TTTTCTTGCGATTTTTTCAAGAACTCTTTTAATTGTCTAACACCTGATTCTAGTGTAT
AGCTTCTGATT

Sequence 1297

CGCCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGT
GTAAAAATAAACAGAAATCAAGGGAGAAAAGAAAGATGAAAGACAACTGCAAAAAATT
GCCAAAATGCGACTTTCTAAAAATGANAGATTCTGAGGCTTTGCATGTCTTGGCATTCTT
TCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTC
TGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTG
CCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATA
TGTAATGACTGGTATGGCAAAAGATTGGACTAAGACACTGGCCATACCA

Sequence 1298

CCGCGGTGGCGGCCCGCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACC
ACTTTATAGAGGGTGTAATAAACAGAAATCAAGGGAGAAAAGAAAGATGAAAGACA
AACTGCAAAAAATTGCCAAAATGCGACTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGC
ATGTCTTGGCATTCTTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTG
AGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAA
GAATAGAGATGTGGTGCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAA
GTTGGTATTCAAATATGTAATGACTGGTATGGCAAAAGATTGGAATAAGACACTGGCCA
TACCACTGGACAGGGTTATGTTAACACCTGAATTGCTGGGTCTTGAGAGAGCCCAAGGAG

TABLE 1
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TTCTGGGGAGAGGGACCAGATT

Sequence 1299

CGCCCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGT
GTAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATT
GCCAAAATGCGACTTTTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCC
TTCAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGT
CTGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGT
GCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAAT
ATGTAATGACTGGTATGGCAAAAGATT

Sequence 1300

CGNCCGCCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTG
TAAAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTG
CCAAAATGCGACTTTTCTAAAAATGGACAGATTCTGAGGCTTTGCATGTCTTGGCATTCT
TCAGGAGCTGAATGAAAAAATGCAACAAGCANATGAAGACTCTGAGAGGGGTTTGGAGTC
TGGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATANAAGATGTGNT
GCCCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGG

Sequence 1301

CNAATTGGAGCTCCCCGCGNGGCGCGGAGGTACAGTATGGCTTAAAAGGCTCTGCCTT
AGATTCTAGAATCCAGAACATTTTCTCAAAGACAATCAGGGTATGGGGGAGAAGTTAGT
TCCAGAGAAGAGAGCGAGTCCAGGGTAGAAGGGATTCTTCTCTCCTGAGGGTCTATGGTC
TCCATTTTTTAAAGCAGCAGNGGTATCTATCCCACTCATGGCCTAGAGGTTGCACAGAG
CTGTCTGGCACCCGCTTCTTTGGCTTTTCTCTCCTGACACCCAGCAATGCTTACTCAGAG
CGTTGAAGGCGGCCAGCACCTCGAAAGAGATTCTCTGATTTTTTGTGAACACCTGGATGG
TGAACCCATCAAGGGACTTCTGGATCTCGAAATTGTTTTTCAACCCTTCGTGAACAGACA
GAACCTTCAGCTTATCCC

Sequence 1302

CCGGGCAGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTA
AAAATAAACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCC
AAAATGCGACTTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTT
CAGGAGCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCT
GGAAGCCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGC
CCACTAGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATAT
GTAATGACT

Sequence 1303

CCGGGCAGGTACTACCATGCCGGGCCAATTTTTTTTTTGTGTTGTAGAAATGAGGTCTTGC
TATGTTGCCAGGCTGGTCTCAAACCTCTGGTCTCAAGCGATCCCCCGCCTCAGCCTCC
CGAAGTGCTGGGATAAAAGGCGTGAACCACCATACCCAGCCAGTATTATCTTTTCATTTT
ATTTTCCAGTTGAGTATATTATTGGCTACATTTGCATACCGCACAAATTGTTTCATTTTTTA
AAAACCAATATTTTGTGTTTGTGTTGTCTACAATAAGGAGAATTCAGATGATAAACTT
ACAACCAATCATGGCCAAGTCCACTTGAGGAATTGTCTCTGTAGATTTATCTGTAGACTC
CCTAATA

Sequence 1304

AGGTACCAAATGAAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGAGTGTA AAAATA
AACCAGAAATCAAGGGAGAAAGAAAAGATGAAAGACAACTGCAAAAAATTGCCAAAATG
CCGACTTTTCTAAAAATGGAGCAGATTCTGAGGCTTTGCATGTCTTGGCATTCTTCAGGA
GCTGAATGAAAAAATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAG
CCTCATCCCTTCAGCATCAAGCTGGAATGGGGAATGAAGAATAGAGATGTGGTGCCCACT
AGGCTACTGCTGAAAGGGAGCTGAAATTCCTCCACCAAGTTGGTATTCAAATATGTAAT
GACTGGTATG

Sequence 1305

AGGTATTCGACCCACGCGCCCGTAGTTTTTATCTTTGACCAACCGAACATGACCAAAAAAC

[illegible]

TABLE 1
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CTGTCTATGCATAGAAAAGTCTTTATGCCTAAGATAATTACTGGGATTTAAGAAAGTGA
GAAAAAGAATAGGTGGGATTGAGAAATTAGGTAAAAACAGAAGAGGCCAACTAAACCCA
AGTGCTGCCCTTCAAGGGCTCTAGTAACCGGACGCGTGGGTCGAAGCTTGACCT

Sequence 1311

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAATCCCGTCTT
ACAGAAGAGAAAAGTCTGAGATTTAGCAACATAAAAGTATTTCCCGTAAGTAAACAGTAGAG
CCAAGATCTTGACCTACGCCATCTGATACCTGAGCCCATGCTATAAAAGAGGAGCATTAG
AAATATTTGAAAGATAGAAATGAGAACTAGTCAATATTTATTTGCTTAGCACTGTATTC
AGTATTATGGCATCTTAAAGTAGTTAAGACTCAATATTTTCATCAAAAAAGTTTAAATCT
AATCAGAGAAT

Sequence 1312

TACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCG
TCCGGCCACATTTTCAATTTAGCCATTTTTCTCTTATTCACCTTTTTCTGCTAATTACTC
TGTAATTCCTAAGAAAAGTCAATAGATAATTC AATAATGACTTCACTCCTGAGAATT
TTATTAGCTGCTAACGCTTGCTCTCATCATAAGCACTCATATGTTCAATTGAGTAAATATTT
ATTGAGTATTTGCTATGGTCCAGGCACTGTGCTAAGTATTGAGGATAAAATGGTGATTGA
AACATTTTCCCTTCTTGATTTTAAACATCTACAAAATAAAAAGTATGTTAATATCAAAAA
AAAAAAAAAAAAAAAAAAAAAGGN

Sequence 1313

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAAGCCTCACTCACAATTATT
TTTGAGATAGCTCCCAATGAGTTTAATCACTGCTATGCCAGGTGTGTGAGGCTGCTGTGG
GACAACAATCTTGATTCTAGAGAGTCATAAATTTCTAGGGACTACAGGCTCCTGCCAC
CATGCCTGGCTAATTTTTGTAGAGATGGGGTTTCACCATGTTGCCCAAGCTGGTCTTGAA
CTTCTGAGCTCAAGCGATCCACCTGCCTCAGCCTCCCAAAGTCTGGGATTACAGGTGTG
GGCCATCACGCTTGCCCTAGAGTAATATTCTCTATTATCAAGGTAGAAAGTTCAACATAT
ATTCATTAGATCTACTTTATAGATACTGTTACTCAGATCACTTATATCGTTATATGTATT
TTTTGTCTTCTTAACCTCAAGTCTTGATGAGAGAAGAGGTGTTTTAAATTTCTCTGTTA
TTTCTAGGGTTCTATTCATTTT

Sequence 1314

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTAGATGACAACATC
AAAACATAGCTCTGATCACCCCGAGAAAGTAAACAAAGATGATGAGGAATTCATAGAAAGC
AATAAAATAGCTGCTATTAATGGAAGAATGTTTGGAACCTACAAGGCCTCACAATGCAC
GTGGGAGATGAAGTCAACTGGTATCTGATGGGAATGGGCAATGAAATAGACTTACACACT
GTACCTGCCCGGGCGGCCGCGGCCGCGGCGGAGGTCCGGGCAGGTGCTGTGATGCTCTG
CGAAGTTTGAGCCCAGAATGAAGAGATGTTACCCAGTATCTTGGTGTGCTGAAGAGGT
GTGTGATGGATGATGACAATGAAGTAAGGGACCGAGCCACCTTCTACCTAAATGTCCTGG
AGCAGAAGCAGAAGGCCCTTAATGCAGGCTATATCCTAAATGGTCTGACTGTGTCCATCC
CTGGTCTGGAGAGGGCTCTGCAGCAAGTACCT

Sequence 1315

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCAGAT
CAGACGTGGCGACCCGCTGAATTTAAGCATATTAGTCAGCGGAGGAAAAGAACTCTGAA
TCCGACCAGTGTAGGTGATTACATTAGCCTTTGAAGTCAACACAAAGTTTAAACACCTG
CCCGGGCGGCCGCGGCCGCGGCGGAGGTGTACAAGCTTCGACCCACGCGTCCGGCTGAAGA
CATCCCTAGGGCAGGTAGCAGAATACCTAATTCAACCTAGAGAGGCACAGGCTGCACGAG
AGTCTCTCAGATAAAGCCCCATTGAAAATAAATTTACAATCTAAAATTTAAAAACCCGTT
AAAAAGCAGCACAGCATGAGGAGTCAGTAGATACACTGAAAGCAAGATTAGATCTTCAA
GACTTTCAAACATATAAAATTTAGAAAATTATAATAAATTATGAAATAGAGGCCCTTTCAT
GTCAAAAAGTCATGAAAG

Sequence 1316

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCG
AAAAGATGAGGCAACAAGTAAGAGAAAACAGCATTGAGCTTAGAGAATTGGAGAAGAAAT

TABLE 1

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TAAAAGCAGCTTACATGAATAAAGAAAGGGCAGCTCAGATTGCTGAAAAGGATGCCATTA
AATATGAACAAATGAAACGTGATGCTGAAATAGCCAAAACCATGATGGAAGAACACAAGA
GAATAATAAAGGAAGAGAATGCTGCAGAAGACAAACGAAACAAAGCGAAAGCACAGTACC
TGCCCG

Sequence 1317

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAGCGTGCATAG
GGACTCTTGCCCTTAAGGAGTGTAACCTTGATCTGCATTTGCTGATTTGTTTTAAAAAA
CAAGAAATGCATGTTTCAAATAAAATTCTCTATTGTAAATAAAATTTTTCTTTGGATCT
TGGCAAAAAAAAAAAAAAAAAAAGTGCAGCGCCGCCCGGGCAGGTACACTTGTGTAT
AAGAGTTTTCTGAAAACAGTCTATCAAATATAAAGAATGGTTTCTATCCAAGAATCAGCA
GTGAGGGAAGAAATACTAAACACCTGTCAAGAAATCAGTTATTCATTTTAAAAATAACA
GAACCAGTGCTGCTCTCTGTCATAAAAAAGAACATGTAAATTTATTTTTATAGGCTTTG
GTAACATTATATTTCCCCACAGAGGCCTTCAATCCTACTTAAAGATA

Sequence 1318

AGGTCAAGCTTCGACCCACGCGTCCGGTTACTAGAGCCCTTGAAGGGCAGCACTTGGGTT
TAGTTGGCCTCTTCTGTTTTACCTAATTTCTCAATCCACCTATTCTTTTTCTCACTT
TCTTAAATCCCAGTAATTATCTTAGGCATAAAGCAGTTTTCTATGCATAGACAGTTCATT
TAGATTGGTAACATGGGCTAGGTAAAAAAAAAAAAAAAAAAGTGCGACCTGCCCGG
GCGGCCGCCGCTCGTGATCTAGATCCCCGACCT

Sequence 1319

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGTTT
GGGTGGAATTATAATTTTTAGATAAGATTAAAGAGGATTCTAATTCTAGCTACTTGATA
GGAATGCGAATGATGATAAGGCTTTTAGAGTTAGATAAGAGAGAGGGCTAGCACCCCTGAT
ATTCTGTAATTGAAACAGAGTTTCAAGTCCTTTGGTCAAGTATTACCCTTATTCCTTCAG
GAATAGTAGATATTTTAAGATTACAGATAGGTTATCTTATCTAATTTACCTACCTATTGT
TGAAATTATTTAATTTGCATTTAACTGTGTTTTACACCTGCCCGGGCGGCCCTCTTACC
TGCTTCTGACCTTATGCTCAAGAACTCCCTAACTCTGGCCAGAGCTCAGCTTTGGCAAC
TCTGACCGTTGAGCAGCTCTCATCCCGGGTTTCCTTTACGT

Sequence 1320

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
AAGCTGCTCCTTGAGGATAAGGGCTAACTCACAGGCAGTGACCAAGAGCCACTATAAAA
AGATCCTTAATGAGCAAAATATATCCCTATTATTTTCTACAAGTTGCTTTTTACTTGA
GTAGGAACCCCTTGATTGATTTTTGCGGACNCGTGGGTGCAANCTTGACCT

Sequence 1321

GGGCGAATTGGAGCTCCCCGCGGNGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGT
TTGTTTTTTTCTTACGGCAACTCAAAGCAAAGAGCTGGAGGAGCCAGCCATTATNATTGC
TACTCTCATCGCTTAGCGCCCCAGGTGGGATGTGTTTCCAAAACACATTTTGTATTTA
TAAGGAAATGTAGTTAGGATTAATTTTATTGTCTTAATTAGAAGTACATTTTGGTTAAA
TCCTCAATTTCAATAAAAAAAAAAAAAAAAAAGTGCAGGCCGCCGCCCGGGCAGGTACA
ATTTAATTTTTCTGCTTGCCCAAGAAACAAAGCTTNTGTGGAACCATGGAAGAAGATGAA
AATGAGACTGGCAAAGAACAATGCTGAATCTGAAGAAGATTTGGGCAAATAATCTGCAT
ACTTTTAATTGGGAATAAGATGGAAAATATGAATGCTAAATCAAATTTTTTA

Sequence 1322

CCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCGTCCGCTCACTTCATCCTCCAG
CAACCTATTATGATCCATTGCCACACCAACTTGCTGATGAGGAAAGTGGGGCTTAAGGAA
ATTAAAGAGCTGTTGTGGGACTTCCAAAGCAGAAGACAGTAGGCTTTCAGAAATTTGATA
AAAATAGCACTTTGCATTTCTTGAATCTTGAGCTAAATGGAAATTAATACTAAACATTCT
CCACTGGTAAATAGAGAATAAGGATATTAACAGTAAAAGAAAAGAAGAAGAAAAGGAAA
TGTGCTTCCACAGATTTAGAAACATAAGTAACAATCTAAGTTAAGGCTTTGGCACCTGCC
CGGGCGGCCGCCGCCCGGGCAGGTTCAAAGACTACCAAAGTATGTATTTGATTTTACA
TGCAACAACCTAAA

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TABLE 1

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Sequence 1323

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTC
CGCAGAAACCTTGCCATCATTCTTACTGCTGGTTTGCATCTCATTATGGTGNNTCTGGG
ATTTCTTCTCATGAACAGAAAGATTCAAGTGGCTGTTATATGCCTTGTCATTTAATGTAT
TGCCCTATCCTCTTTTTGATCAAAGATAGAGACTAAGACTGGGAATTATGACAGAAAAAG
TCATATTTTTCTTTAATGATTTTGAATGTTAAATAGGCCAATATGAGTCAAAGTGCA
AATTTTTTGGTGACCTGCCCGGGCGGCCGCCGCCGCCGCGGCAGGTAAGCATTTCAGT
TCCAGGAGAATAAAAGAAATTCCTATTTGAAATGAATTCCTCATTGGAGGAAAAAAGC
ATGCATTCTAGCACAACAAGATGAAATTATGGAATCAAAGTGGCTCCTTCCCATGTGCA
GTCCCTGTCCCCCGCCGCCAGTCTCCACACCCAACTGTTTCTGATTGGCTTTTAGCTT
TTTGGTGGTTTTTTTTTTTTT

Sequence 1324

CCGCGGTGGCGGCCGCCCGGGCAGGTGCCTAATATATTTACTCTCTGGTCCTTTACAGGA
AAAGTTTGCCAACCTCTGGCTTAGATGATCACCTGAGGCCAAGGAGCCTCGCCCTTGAGC
ACAAGACTATGTAGTCAGTAAAGCACAAACAAAATTGGGGCTTTCCCTAGCAAGGTTGGA
AAGGCGGAGAAAGAAATGGATTTGGATAGGTAGTCAACAATGTCTGTTTTATGTTACCACA
CATTTTCTCGAGAAATTTCAATCAGCTCTCTGAGAACAGATTTCATCTTTAAATGAATGTT
CATAGGTAACAGCAACTCATGCATCAATGTTGCAAAGTGAGCTCATTTTCACATTGCTTC
AGGTTAGGCAGAAGGTTTGGTAAAGGGATTAACGTAATTGTTTCCTTGNTGTTTACAAAA
AGAAGTCCCAGTTGGCATGCCACATAAAATCTTCTGNATCTCACTCTTGGTTACATTTT

Sequence 1325

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGTCCGCAGAGGCC
AGGCTCCCAAACCGACAAAGTGAAGAGAGACCAGAGAGGCCAAGCATATTGACTGGTGCT
GTTCAGGGCCTGCTCTTTTCCACTCACCCTTGTTTTGCTGCTTGTCACGAGGAGAGTTG
TTCCTGTATGTGGCTGCTCTCAGATCTTCCAAGCAAGCCAGTCATTTGAAGAGGTTTTT
TTTTCATGCTGGAGGGCAGGCTAAGATCAATGAGTGAAGAGAGAAAGGCTGTTTTAGCT
CAAGTTAAAGGAACACCTTCTAGCCATCAAAGCCGCCCAACAGAGGCAAGGGCCACCACA
CATGAGAGAGCGCTCTNTCCTTAA

Sequence 1326

GCGAATTGGAGCTCNCCGCGGTGGCGGNCGCCCGGGCAGGTACCAAAATAATTACCAACA
NTACATTATGTACACCATTTACAGGAGGGTAACACAAACCTTGACAGGTAGTAACTTTTC
ACCCACATNACTGAACGCTTAACACTCCTGGCTGTTAATTGTCAGTTCAGTGTTTAAAT
CTGACGCAGGCTTATGCGGAGGAGAATGTTTTCATGTTACTTATACTAACATTAGTTCTT
CTATAGGGGTATAGCGGACGCGTGGGTCGAAGCTTGACCT

Sequence 1327

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCTGTAGCCTATGACTTG
AGTCTCTTGAACCTTAGGAAGAGGCAAACTACAACTACTAGGATTCTGATTTAGATA
TAGGCATTCCAGAATCTTCTTTACGAGTTACCTGCTAGTATAATCTCCACAACCTGA
ATGGCCTTGTTGTTCTGTAATTGCTGCCAAATCATCACAAGCTGTACCTGCCCGGGCG
GCCGGCCGCCCGGGCAGGTCAAGCTTCGACCCACGCGTCCGGATGGGAATTCAGGTATGA
AAGAAAACAGGCAAGGAGGCACTGAGGGAGAAAGACACAGACTTTATCGCTCTGTGGCTC
ATTGTTACTGGAATATTCTAAACTCTTGTTACATGCTATTATGACTTATAAAGCAGCA
ACAGCTGAGGCGCACCAGGACACAGCTTCCATTTCTTAACTG

Sequence 1328

AGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGA
AAAATGGGAGACAATTTACATGGACTTTGGAATAATTTTTTCTTTGCATTATCTC
TCAAACCTTAGTTTTATCTTTGACCAACCGAATGACCAAAAAACCAAAAGTGCAATCAA
CCTTACCAAAAAAAAAAAAAAAAAAAGACCTGCCCGGGCGGCCGCCGCCGCCGCGGCAGGTA
CAAGCTCGACCCACGCGTCCGAAATAATAAAGCTAGAAGTAATTTTTTCTTTTGTCTA
TTTTCCAAATTGACTCGATATTGATGGCTACTTTTGAAGTTTTTATTTAAGTTTAAAGG
GAATATTTATTGATCACCTNTATGTGCTCAGTACCT

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Sequence 1329

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCTTCGACCCACGCGTCCGC
TTGGGGATTTTCGAGGAAGGGTTCATAAGGGAGATTTTAGCTGAGAAATACCATTTGCACA
GTCAATCACTTCTGACCAAGTTATCAGAAAAAGGAGAAAAGAATGTCTCCCCACTAAATG
TTCTAGGGTGGTGAGAAATCTAGGGTGGTTATCTAAATCAACAATATTTAGATATTCCAA
TATCTAAATATTGTTGGAAATACTCTCCTGAAGTGTTCAATTGAACCTCTAAGAGAGACAGC
TTGTGTATCAGTGGCAGGGTTTAAGGTTCATTTTTATTCCCATATTAATCCTTTAATAT
TTAGACAAATTTCTTCTGAGTTTAAGGATAAAATGGGATGGGTTCTGCCTGGGCCTGGC
CCTCATGGGGACATCAAAGGGCAATGTTGCAAAAAAAAAAACC

Sequence 1330

AGGTCAAGCTTCGACCCACGCGTCCGTGAACTTTTATCAAGGCTTTTGCTCTTTAGACT
TGAGTTTATCTTTATAATTAAGGAGAATGGTTTTTAAAATTTAGTTCCTCTGACACCCCA
AAATTATCAAAATAAATTATGTTGTAGTGAATCTGTGTTTTGAAAGTCATTGATAGGACT
TATATGAGTCAAAATTTTATGGATTATAAACTAGGCTTTATCTGGTTGGAAATAATTGCA
ATACAAGAAGCAACTTTATTAATTAAGCTAAAGTCACAATCTTCTTTGCTGCTTT
TTAAAAATTACCTATTACCTTTAAAGATCCCAAATTTAGAAGAGGAATTAATAAAAG
TTAATGCAATAAAACACTTCCACAATATTCTATTACTTCAACCTCTAATCAATGAAA

Sequence 1331

AGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTAAAATTTAAAGTATAATA
ATAATAAATTTTTGTTTTAAAAAAGAGTGTTGTCTTTGTCTTGATTTTCTGCAGTTTG
CATGTGATATTCTTAGGTATAGATTTTTTTAGTATTTGTCTGTATATTGTTATTCGAG
CTTCTGGGATCTGTGTTTTGGTGTCTATCATTAACTTTGGAATATTCTCAGTCATTACTG
CTTCAAACATTCAATTCTGTTGCTTTTTCTTTCTGTTATTATCATTACACATATATCACA
CCTTTTGTAAATCTCCACAGTTCATAGATATTCTGTNGTATTTATTTATTTTTCTCTT
TGCCTTTTAGTTTTAGAGATTTCTATTGACATCACTTAAAGATGATTGATGAGTTGATGA
GAATTGAGAGAATTGATGAGAATTGTTGATGAGAATTATT

Sequence 1332

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTTTCCTGCATTTTC
TAATGAAGAAATAGGCTGGTCCTCAATTTTGAGAAGTTGTATCATCATAGGTCATACCT
AACATTCGTTTGTCAAGAGCAAAAAAACCCCTTGGGTTCTCTGGATCTCACACAGCCCA
CAAACCTTCAGAATGTGGTTCCTTCCCGCAGGCTTTGTCACACTTAAGATCCAAGAACAA
ATCAGCCTGGCTTAAACATGGGGTAGATGGCAAGAAGGATAATGCGGACGCGTGGGTGCA
AACTTGACCT

Sequence 1333

CCGCGGTGGCGGCCGAGGTAGCGGTGCACTTTTTTTTTTTTTTTTTTTTAAATAGAGA
TGAGGTTTTGCTATGTTGCCAGGCTGGNCTNCTGGACTCAAGCAATCTCCCACTTCAGG
CTACCAAAGTGCTGGGATTTACAGGCATGAGCCACCTCTCCAGTCTCAGTTATTATTTT
AATAAATGAGACTGAACGTCTCTTATAAGGCTCACTCCCTTGTTCCTACTACATTTGCT
CTGTTTAAAGTATCTCTTTAAATCTTCAGTTAAGCGGACGCGTGGGTGCAAGACCTGCC
GGGCGGCCGCGGCCGCGGCGGAGGTATTAACAGGTGCTTGCAAGTTTGTGACTTTTTTGA
AAAAACAAGTTGTAACCTTTTATTACAAATTAATAAAGTCTTAAAAATCTCAACTT
GACCAGATATGAAACAATTTAAAAACCTTTAAGGCGTATTGAGAAAAACCAGGCTTTTTT
AAA

Sequence 1334

ACTTAGGGCGAATTGGAGCTCCCCGCGGNGGCGGCCGCTCACCTGCCCGGGCGGCCGCTC
GAGGCCGCTCACCTGCCCGGGCGGCCGCGCACTTTTTTTTTTTTTTTTTTNNCAAAA
CAAAACATGCTTAGCATGCACACTTTTACCACCTTTTTTCGAGTGGAAGTTTATTGGCAA
TATTAATTTTACCCTANATAGGATATGAGAATGTTTTGATAAATCACAATTTATAGTAT
ATTAATGCCATGTGAGAATTTTGTTCCTCAAGTAAGAGCTCACATGGAACCTTGGTCATTA
AACCTTAAAGAAACCTTTCTCACATATCTATAGGCCTCAAATTGAAATAATCTATAAATG
AATTTGTAGATTTCTTTTAGTTAATTCCTGAGTATACAGGGCAAAAGCTTATATCCTT

TABLE 1

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TATATAAACTTCTGCTTTGGTCTAAACTGATATATCTTCACGTTGAGGTTTCATCTGAA
ATGCNCCACCGTTTGTCTGACTTGCTTCAATATGAATTTGGATGGCTATAAAATTGACCTC
GGCCGCTCTAGAACTAGTGGGATCCCC

Sequence 1335

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCGGCCGCTCGAGGCCG
CACTTTTTTTTTTTTTTTTTTTGGTAAACAGGCGGGGTAAGATTTGCCGAGTTCCTTTT
ACTTTTTTTAACTTTTCCTTATGAGCATGCCTGTGTTGGGTTGACAGTGAGGGTAATAAT
GACTTGTTGGTTGATTGTAGATATTGGCGGACGCGTGGGTGCAATCTGTACCTGCCCGG
GCGGCCCATAGTTTGTCAACCACTGGTGTAAACCTTAGTTATATATGATCTGCATTTTC
TTGAACTGATCATTGAAACTTATAAACCTAACAGAAAAGCCACATAATTTTAGTGCA
TTATGCAATAATCACATTGCCTTTGTGTTAATAGTCAAATACTTACCTTTGGAGAATACT
TACCTTTGGAGGGAATGTATAAAATTTCTCAGGCAGAGTCCTGGATATAGGAAAAAGTAA
TTTATGAAGTAAACTTCAGTTGCTTAATCAAATAATGATAGTCTAACAACCTGAGCAAGG
ATCCTCATCTNGAGAAGTGCTTAAAT

Sequence 1336

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGAAGATCCTGCGGAAGGAA
TATGTTTTTGTCTGACTCCAAAGTAAGTGACAGCAAACCTCTAAATGGGCTGTGAGGTAG
GGAGGGGACACAAGCGTTTTGAGGCTCGCTGNGTGCCAGGGAGTGTATCATTAGCTCACT
CAATCCCAGAACCAACCATTTACACCTGGGAAAGGTGAACTTAGAGAAAGTTGAGGATC
ATGTTCCAGGTTGGCCTGGATTTGAGCCATCACTGTCTCAGGAGTAGGGAGGCTTCCAC
TTTGCCAGCTGCCTCCAGCCTCGAGGCCACATCCTTTATGACCCACATCTAACTCAGC
CCACACCTGGGGGAAAGGCTTTCAGCTTCTCTGGGCTGGACTTGGGAAATCTTTGGGAC
ACTCTGACCTGCCCGGGCGGC

Sequence 1337

CCGCGGTGGCGGCCGCGGCCGAGGTGTCCCATGAGGGCCAGGCCAGGCAGAACCCAT
CCCATTTTATCCTTAAACTCAGAAGGAAATNNGTCTAAATATTAAGGATTAATATGGGA
ATAAAAAATGAACCTTAAACCTGCCACTGATACACAAGCTGTCTCTCTTAGAGTTCAAT
GAACACTTCAGGAGAGTATTTCCAACAATATTTAGATATTGGAATATCTAAATATTGTTG
ATTTAGATAACCAACCTAGATTTCTCACCACCTAGAACATTTAGNGGGGAGACATTCTT
TTCTCCTTTTTCTGATAACTTGGTCAGAAGTGATTGACTGTGCAAATGGTATTTCTCAGC
TAAATCTCCCTTATGAACCTTCTCGAAATCCCAAGGT

Sequence 1338

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCTTCGACCCACGCGTCCGCTT
GGGGATTTGAGGAAGGGTTCATAAGGGAGATTTTAGCTGAGAAATACCATTTGCACAGT
CAATCACTTCTGACCAAGTTATCAGAAAAAGGAGAAAAGAATGTCTCCCACTAAATGTT
CTAGGGTGGTGAGAAATCTAGGGTGGTTATCTAAATCAACAATATTTAGATATTTCAATA
TCTAAATATTGTTGAAATACTCTCCTGAAGTGTTCACTGAACTCTAAGAGAGACAGCTT
GTGTATCAGTGGCAGGGTTTAAGGTTCATTTTTATTTCCCATATTAATCCTTTAATATT
AGACAAATTTCTTCTGAGTTTAAGGATAAAATGGGATGGGTTCTGCCTGGGCCTGGCCC
TCATGGGGACATCAAAGGGCAATGTTGCAAAAAAAAAAACCTGCCCGGGCGGC

Sequence 1339

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGATTCTCTGATTAGATTTTAACTT
TTTTGATGAAATATTGAGTCTTAACTACTTTAAGATGCCATAATACTGAATACAGNGCTA
AGCAAAATAAATATTGACTAGTTCTCATTTCTATCTTTCAAATATTTCTAATGCTCCTCT
TTTATAGCATGGGCTCAGGTATCAGATGGCGTAGGTCAAGATCTTGGCTCTACTGTTTAC
TTACGGGAAATACTTTTATGTTGCTAAATCTCAGTTTTCTCTTCTGTAAGACGGGATTAA
AGTACCT

Sequence 1340

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCCGAGGTCTACTCAAGTAGTCT
TTACCCCTACTCAAGTAGGGGGTAAAGTGTAGAACAAGGAGTTTGATNTGTGTTNGCTG
ATTGTGAACCATCAATTGAGATAACTCACTACCTTCAGGCCAGCCAGTTACATACTTTTG

TABLE 1
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AAAAGCCAAGAGTGAAGCAGGGTTGTTTTTCATCCAATTCTTGGTCTTTTTGTTAAAGGC
AGCAATAAGATAGGGTGGTTTCGGGCAATCACTTAGCTAATTGGCTCTCTATAGTCATAC
CTGGATAATATTTGTAGTCATACCTGGGATAATATTTAAAGGAAGAACTAAACATAGT
CCTTAAGTAGGAACCAACTACAAT

Sequence 1341

CCGCGGTGGCGGCCGAGGTCCTAGCTTGAGTCGACCCACGCGTCCGGCCGCTGTTTCGTAT
TTCTTATTCTACAACAAGGGNGCAGCCTANAGGCAAAACACATCCCATTGTCATTTTTTT
GTAAATAAAGTTGTATTGGAACATGGCCACTCTCATTTGTTTTCTATTATTTATGGCTGC
TTTCACTTACAACCTGAGTGGTTGCCACAGAACTGTATGGCCTGCAAAGTCTAAAATAT
TACTATGTAGCTTTTTCTTTCTTTTGGAGACAGTGTGCCACTCTATTGCCCAGGCTG
GAGTGGCGGTGGTGTGATCATGGCTCATTGCAGCCTCAAACCTCTGGGCTCAAGCAATCCT
CCCGCCTCGGTCTCCCAAGTAGTTGGGACTACAGGCATGAGCCACCATACCCGGCTAATT
TTTTAAAGTTTTTGGTAGAAATGGAGTTTTTTAATGTTGCCCAGGCTGGTCTTGAACCT
CCTGGTCTTAAATGACCCTTTTCCCATCAG

Sequence 1342

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGTTATTTATTGATTTAATCAT
TGTAATCTCCAATAGAGATTACAATAGAGATCTCCAACATGATTTTCATGCATTTAGAGGA
GAAATATTTCTGGTTAAGTGGAAAATTGTGCGGATGTGGCTTCTGGAAGACCTTCATT
TAAAGCAGCGGACGCGTGGGTGCAAACTGCCCGGGCGGCCGCGCCCGGGCAGGTCTG
CAATCCAGCTAGGCATGGGAGGGAACAAGGAAAACATGGAACCCAAAGGGAAGTGCAGCG
AGAGCACAAAGATTCTAGGATACTGCGAGCAAATGGGGTGGAGGGGTGCTCTCCTGAGCT
ACAGAAGGAATGATCTGGTGGTTAAGATAAAACACAAGTCAAACCTATTTCGAGTTGTNCA
CAGTCAGCAATGGNGATCTTTTGTCTGCTTGTGCCCATTCCTGGA

Sequence 1343

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGCTTTAAAACCCATA
CCCCTCCAGGGTTCTTTCTGTTGCTGGTGAAAGTGCACTTTTTAAAAGAGTNATTCATAC
CATCAAGATTTTTGACAAGAAAATTTAGAAAACTGTGGAAGAAAACCTGATTGCTCTTA
GTTCTAGCCATGTGTAATTGCTGACCACCTGAAATGGTCCAACTGAGATTTGCTAAAGC
ATAAAATACACACCATATTTCAAAGGTTTTTAAAAGAATGTAAAACATTTCAATTAATTC
GGACGCGTGGGTGCAAGCTTGACCTGCCCGGGCGGCCGAGGTGGATGGACCCATCCATTC
AGGCAGGGGGTGTGGGGTGTCCCTGTGCTTAGAAACCACCTAGCATCATAAGCTGCAAC
AGCACTTTATTGGGATCTGAGTCTACAGTTCACATAGGGAGGTGAAGCCGTGGGAGAAGC
AGGGNGTAAAAAAGGGGGGGGACTTTACCCCTAAGGACAGGNTGCTTCC
AAACCTAACAAAAAC

Sequence 1344

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGTAATTTGTTGCACACTAT
GTAACAAAACAAGTGAAGATATGTTAATAAATATTGACTTATTGGAAGTAAAAA
AAAAAAAAAAAAAAAAAGTGCGGCCGCGCCGCACTTTTTTTTTTTTTTTTGTCTGGGGTTT
TTTTCTTTCTTTTTTTTTCAGCTACAGGAATTTAGCCAATTCANAGGAAATCTTCCCCA
TAATTATGGAACTTTNTTACAGATTTTACCAAGTCTGGTCAACCCAATAAGAAAAAGACT
GAAATAACAATAACAACCTTCAACAAATAAAAAACAGTTAAGCTAAATAAACAGATGATT
GCAGAATTTATGTGATTACTGGGTACCTCGGCCGCTNTAGAACTAGTG

Sequence 1345

CCGCGGTGGCGGCCGCCCCGGGCAGGTACCAAGTTTGAGTTGAAACGGTATGTGACTTCCC
CAGCTGCACCCTGGGCAGTGAAGTGCATGCTACTGAGAGGTCTGTCTACAGCAGATAA
AACTCCACAGATCACTCCTCCTGTAATCCCTCTAAGTGCTCCAAGGCAGCAGAAAGGCC
AGTGCAATTGAGGCTGGAAGCAGGAGCAGAGACTCTGGGATATAGTGCGAAAGTCTCTTTC
CCCTGTAGTTGGGCTAATCTGGAAAACTCAAAACCTGGCCTGATTACCGAGGTTTCTT
TTATGGATATTTAGTATTTAGATAAAATTTTACAGTATTCTTGAAATGAACCCAATTAA
ACACATAGTTCTCAGTCTTGACCACACATTAAGAATCATCTGGTAGACTTCTGTAAACTA
CCAATGCCTGGCCA

TABLE 1
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Sequence 1346

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGC
TTCACATTTGATTGTTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCCTCACGA
GTTTAAAGATTGCTTCAGATCTTAACTTCTAATGAGGAAAGCTGAGAAGTCCAATGCCA
TTCTGATTCTTGCAACTTACAAGTAGTCTTTTTTTGTCTANACGCTTTCAGGACCTTCTT
TTTTCTCAGTCAGTGTATCCAAACCTTCACAGTGATATCTTTGGGTACCT

Sequence 1347

CTCCCCGCGGGGGCGGCCGCCCGGNAGGCNAAGCTTCGACCCACGCGTCCGCTTTAAAGG
GAATTCTNTGTAGAGTGGGAGGCGAACACGNCTGGNNCTTCCAACCTCAGGAATTCTCGTG
GCTGGGCTGGGTGAGCGATGGCTTTGTCTTTATGTCTAAAGTGCCCTATGGCATGCTG
AAGGTTACCTAACCATTCTTTAAAAGGAGAATGACCCTCCATGGGAATGGCCAGCCTGCC
AACTGTGCAATTGAAGAAGACCCGATGGATCAACCCCATGTCTTCCTTGGGGAGAAAAGTG
CATAAACCCAGGGGTCCCTTTTTTTTTT

Sequence 1348

AGGTCAAGCTTCGACCCACGCGTCCGCAAAAATCAATCAAGGGTTCCTACTCAAGTAAAA
AGCAACTTGTAGGAAAATAATAGGGGATATATTTTGTCTAATAAGGATCTTTTTATAGTG
GCTCTTGGTGCACTGCCTGTGAGTTAGCCTTATCCTCAAGGAGCAGCTTAAAAAAAAAA
AAAAAAAAAGT

Sequence 1349

GCGCGTATACGACTCCTATAGGGCGAATTGGGAGCTCCCCGCGGTGGGCGGCCCGAGGTA
CAAACCTATGTATCTGAAACACTTCTATTTGGCAATTTATAACAAATCAAATTTAAAAA
GAACAAAAGAGATTGCAGATTACTTCGAGATACAGAATAAAGCAATTGATGAAGTGCTT
AAGCAAAAGAAACAACAAAAAAGAAAACACACTGCTTTTCTTTTAAAAATAAAATCAC
ATTGCTATAGATCAAATGGATAATACCTTATTAACAACCATTCAGAAATGTCTTATAG
TAGCAGTGCTTTTATTTGCACTTCACTTAATTTTATAAGACTCATTTTCATGTATATAGC
TCTTTACCCCATTTGTTAACGAATAAAGTCTCTCATAATTTTACACTTTTAAATTTTTT
AAAGCAAATGAGAAATGATTTATGTATCGTGGAACCTTTCCCATTTTGAACCAAAGGT
TTAATTCTATATTTTGNCTAATATTTCTTAAAAAAT

Sequence 1350

CCGCGGTGGCGGCCCGCCCGGGCAGGTACTATCTATAAAGGAGGTTTGATGTTTTCTTA
CTGTTTTTGTAATATTTTCAACATTATCTTTAAAAAGTAAGGACATTGGCCGGGTGCGGT
GGCTCATACCTGTAATCCCAGCGCTTTGGGAGGCNGGTGGGTGGATCACCTGAGGCTAGA
TAGTTTTATTCACTTGGCTGTTTACCAAAAAAAAAAAAAAAAAAAAAAGTGCGGCCACCT

Sequence 1351

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGAGCAGGATTACCATGG
CAACAACACATCATCAGTAGGGTAAACTAACCTGTCTCACGACGGTCTAAACCCAGTAG
AAACAAAGTGCGGCCGCGCCCGGGCAGGTGCCGCACTTTTTTTTTTTTTTTTTTTAG
AATAGGATTGAATTTTATTAACAAACAAAAATAAATCTAAAAAGCTTCCTTCAGTTACAAA
TATGCACAAGAATTTCTGCATTACATCTTTGACATAAAATGTTCTGAATGACAGAAGTA
GAAGTAGAACTTACTACCATTTGAAGACAGGAGTTGAGCGCTGAAAACACACACATTTA
TAGAAAGAAACCAAAGTTTACAGGGAAGACCTGTGATCTCTGGCTACAGGAGCTGAAAT
TAGGAACATGAAAGAACTTGGAGAGAGAAGACATTCAATACTCTAAATACTTCAGCAA
AAATAGTCAAACATNTGTNAACAACTTGGNACAAAACCTTTATATGGTGGGGGGTGGCTAT
GCCGGAATAANTCTTNACTGGNTATTATTCACCTCAAAAAGGGGNTTTAATGNTCACG
AATCCTTCCTTTAAATAAANAAGCNTGGNTTNTTTTCTGGNGTCAAGAGTAAANG
TANTAGGNNTACTCAGGGATGTTTGAATTTTAAACGGGGCNTTCCACCTTGGTGG
CTNGTGGCANTTTANCCAAAACGGCNAANAACCGGCCGNGGTCACTTGNAACCT
GGCGGNTTNAATANGGACCCCGGTGGGGGATTNANTNAGNTTGANCCGNNNCTTGGG
GGGGCCGGCCC

Sequence 1352

TABLE 1
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CGAGGTCAAGCTTCGACCCACGCGTCCGGTACTAGAGCCCTTGAAGGGCAGCACTTGGG
TTTAGTTGGCCTCTTCTGTTTTACCTAATTTCTCAATCCACCTATTCTTTTTCTCAC
TTTCTTAAATCCCAGTAATTATCTTAGGANAAGCAGTTTTCTATGCATAGACAGTTCATT
TAGATTGGTAACATGGGCTAGGTAAAAAAAAAAAAAAAAAAGGTGCGACCTGCCCG
GGCGGCCGCTCGAGGCCGCCGGGCAGGTACTATGTCGATTGACAGAACATTGAGAAGA
TTCTCGGCCTTGCCCCTTCACGAGCCGCCACCAAGCAGGCAGGTGGATTTCTTGCCAC
CACCTNCTTCTGGGAAGTTCTCTTGAAGTCAAGAACTCTTATTTCTATCATTCTTTCT
AGACACACACACATNAGACTGGCAACTGTTTTGTAGCAANAGCCATANGTAGCCTTACTA
CTTGGGCCNTTTCTAGGTTTGAATTATTTCTAAGCCTTTTGGGNATGATTAGAGNGAAA
ATGGCNCNGCAAACCTTGNAGGGGCTTTTGGNNCCANAATGATTTTTAATAAAAAAAGG
GGATTGAATAGNTAAANTCAAGGGAANGGTTTATGNAAAGGAAAAAAAAAAGCCTCCTTC
NTGGTTTAAATTTACAAAAGTNTTTNTNGGGGGACCGNCTNTAAAGNACTNGGGNTTNC
CCCGCAAGGTGGGNNGGTATTNACCCNTTTNNGGNTTNAAAAAAAAAANTTNGNNNGGT
NAACCCTGGAACNGGGGGGGTTNGNG

Sequence 1353

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGCAGGTCTTCGACCCACGC
GTCCCGGGGTTTCAAACCTGAATAACTCATTGTTGGGTCTGGATCTGTAAAAAGGTTTGT
CACTGATGGGCAATATGGAGAGAATGTAAAAATATCTAACTTCAAACAGAAAAAGAAAC
AACTGGATGAAAGCTATAACAATAGTTCAGAAGATTGGCGTAGAGGATTTACCTACAGA
ACTTCAGGAGATTCTAAGAAGGCCTTCAGTGATCTTTTCATCAATATCATCAGGCCTTA
TCATTGTTTCACATTTGCTTCTCTTTACCATAGGGAATATAATAATTATTTACTGGTTAA
CTTCCTAGGGAGATTGCCTGCGGCTTATTTAAGATCCAAATTTTAAAGTAATAATTTCTG
TTGAAGCTGCTTGTGAGGTGGTTGGGTGGGCAGATAGAGTGAAGCCAGGGACACACACTA
AATGAGCCCGGGATGTAGGCAGGTTTTGATGTTTTGCTTGTCTTTATCCCTAACATT

Sequence 1354

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGATTCTCTGATTAGATTTTAACTT
TTTTGATGAAATATTGAGTCTTAAGTCTTTAAGATGCCATAATACTGAATACAGTGCTA
AGCAAAATAAATATTGACTAGTTCTCATTCTATCTTTCAAATATTTCTAATGCTCCTCT
TTAAGCATGGGCTCAGGTATCAGATGGCGTAGGTCAAGATCTTGGCTCTACTGTTTACTT
ACGGGAAATACTTTTATGTTGCTAAATCTCAGTTTTCTCTCTGTAAGACGGGATTAAAG
TACCT

Sequence 1355

AGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTCTTCGACCCACGCGTCCGGGGTTTCAA
ACTGAATAACTCATTGTTGGGTCTGGATCTGTAAAAAGGTTTGTCACTGATGGGCAATA
TGGAGAGAATGTAAAAATATCTAACTTCAAACAGAAAAAAGAACTGGAATGAAAAG
CTATAACAATAGTTCAGAAGATTGGCGTAGAGGATTTACCTACAGAACTTCAGGAGATT
CCTAAGAAGGCCTTCAGTGATCTTTTCATCAATATCATCAGGCCTTATCATTGTTTCACA
TTTGCTTCTCTTTACCATAGGGAATATAATAATTATTTACTGGTTAACTTCCTAGGGAGA
TTGCCTGCGGCTTATTTAAGATCCAAATTTTAAAGTAATAATTTCTGTTGAAGCTGCTTG
TGAGGTGGTTGGGTGGGCAGATAGAGTGAAGCCAGGGACACACACTAAATGAGCCCGGGA
TGAGGCAGGTTTTGATGGTTTGCTTGC

Sequence 1356

CGCCCGGGCAGGTACTATCTATAAAGGAGGTTTGATGTTTTCTTACTGTTTTGTAAAT
ATTTGAGCATTATCTTTAAAAAGTAAGGACATTGGCCGGGTGCGGTGGCTCATACCTGTA
ATCCCAGCGCTTTGGGAGGCNGGTGGGTGGATCACCTGAGGCTAGATAGTTTTATTCACT
TGGCTGTTTCACCAAAAAAAAAAAAAAAAAAAGTGCGGCCACCT

Sequence 1357

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTGCGTCCCGAGTGTTTCCA
CTCTGTCCATAAAATGGGAGCTAATATTCTCCAACCTGTGTGCCTGACATGATGGTTAA
GGGATTAAACAAAACAATAGTTTGAATTTATTCTGTCAGAGCAAACCTGCTGGTAAATAA
AAGGGCTAGTGACGAAAAATAATTTTAAAAAACCTAATAAAACAAGTTTGAATTTATA

TABLE 1
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ATTGTATACAAATAAAAGATGTTACAAAAAAAAAAAAAAAAAAGGACCTGCCCGGGC
GGCCGGCCGCCCGGGCAGGTTTTATTTAACATTCAAACCTCATTAAAGACATGTGCAATAT
GGCAATTTTACTGGGGATTAAACCCTACCTAGGATTGCTTGCTGGGGCTTAGCAACAGGG
TCCAGTTCACACTTAGCACTAATTAAATACTTTATTGAATAAATACAATACCAAACAAAA
TGCATTCAAA

Sequence 1358

CCGCGGTGGCGGCCGAGGTCAAGTTTCGACCCACGCGTCCGCATTATCCTTCTTGCCATC
TACCCCATGTTAAAGCCAGGCTGATTTGTTCTTGATCTTAAGTGTGACAAAGCCTGCGG
GAAGGAACCACATTCTGAAGGTTTGTGGGCTGTGTGAGATCCAGAGAACCCAAGGGGGT
TTTTGCTCTTGACAAACGAATGTTAGGTATGACCTATGATGATACAACCTCTGCAAAAT
TGAGGACCAGCCTATTTCTTCATTAGAAATGCAGGAAACCTGCCCG

Sequence 1359

CGCGGTGGCGGCCGAGGTCAACGCTTCGACCCACGCGTCCGGGACCTCAGAATATAAAAA
TATGGTTTTTTTTTCAGACTTACTAGTTTTTTTGATAATTCCTCTACGAATGTTGATT
AACTTAGAAATATGTAAATTTAATATTCAAAACCAAATTATTTTTTAAAGAGGAAAAAA
TATAAACCTGCCCGGGCGGCCGCGCACTTTTTTTTTTTTTTTTTTNAACTTT
AATAGNGTNCGGAAGNTGAATAATTTATGAAGGAGAGGGGTCAGGGTTGATTCTG

Sequence 1360

ACTNCTATAGGGCGAATTGGAGCTCCCGCGGTGGCGGCCGAGGTCTTGAGTCGACCCAC
NCGNCCGGAGATGTATACTGCCACTATAGGAACTATAAGAAAAAGTCAAATGGAAATNTN
ATAAATAAAAACACAGTCACTATAATGAGGAAATACTTTGATANGGNGTCAGTGAACTC
AAAAATNANTCAATNGAACTACTCAAACCTAAACCTCAAAGAGAAAAAAAANGATGGGAG
ATAATTATTTTTAAGAATTGGTCATCAAATGTAGCAACAAGTTCGCCTTATCCTATAT
CATTTGAATTTTCAAAAAATAAGCTCATTATACAATCTTTAAATATTTTGAATAGAACT
GTTTCATGTGTTATTNGTGAAAT

Sequence 1361

CCGGGCAGGTCTACTCAAGTAGTCTTTACCCCTACTCAAGTAGGGGGTAAAGTGTAGAA
CAAGGAGTTTGATCTGTGTTCAACTGATTGTGAACCATCAATTGAGATAACTCACTACCT
TCAGGCCAGCCAGTTACATACTTTTAAAAAGCCAAGAGTGAAGCAGGGTTGTTTTTCATC
CAATCTTGGTCTTTTTGTTAAAGGCAGCAATAAGATAGGGTGGTTTCGGGCAATCACTT
AGCTAATTGGCTCTCTATAGTCATACCTGGATAATATTTGTAGTCATACCTGGATAATAT
TTAAAGGAAGAACTAAACATAGTCCTTAAGTAGGAACAACCTACAATTTTAACT

Sequence 1362

ACTGTTTTTTTTTATTTGTTGAAGTTGTTGTTGTTATTTCACTCTTTTTCTTATTGGGT
GACCAGACTTGGTAAATCTGTAAAGAAAGTTCATAATTATGGGGAAGATTTCTCTGAA
TTGGCTAAATTCCTGTAGCTGAAAAAAAAAAAAAAAAACCTGCCCGGGCGGCCCGCCCC
GGGCAGGTTACAAGCTTCGACCCACGCGTCCGGGAAATTTTAATTAATAAATAGGTGAACA
TTTTAAATGACCTAATACATATTTAGTCCACATTGAACTTTGGCATTGTTGNCATTGCCA
TTAAATTTTTGATGGCATTAAATTTTATGCCATTAAAAATTTTTGATCAGTAGGTAG
CA

Sequence 1363

CCGCGGTGGCGGCCGAGGTACCACGTTGTCCCCTGAAAGGTGTTGTGTCCCTCACCAGA
CTGGGAGCACCTCAAGGGCAGAACCCATGTCATGTTCTTTTTGTATTTCCAGACCTGAA
ACTGCCAGTAAATAAACCTAAAAGTAGAAAGAAAAAAAAAAAAAAAAAAGTGCGGCCG
CCGCACTTTTTTTTTTTTTTTTTTTNGGAAACCAAACATGCTTTATTTCATTTTTTTC
ACAATTTATTTAAACATCTCANATATACAAATAGGTACCT

Sequence 1364

CCGGGCAGGTGAGGAGTGTCCTAAAGATTTCCCAAGTCCAGCCCAGAGAAGCTGAAAGCC
TTTCCCCCAGGTGTGGGGCTGAGTTAGATGTGGGTGATAAAGGATGTGGCCTCGAGGCTG
GGAGGCAGCTGGGCAAAGTGGGAAGCCTCCCTACTCCTGAGACAGTGATGGCTCAAATCC
AGGCCAACCTGGAACATGATCCTCAACTTCTCTAAGTTCACCTTTCCAGGTGTGAAATG

TABLE 1

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GGTTGTTCTGGGAATTGAGTGAGCTAATGATACACTCCCTGGCACACAGCGAGCCTCAAA
ACGCTTGTGTCCCCTCCCTACCTCACAGCCCATTITAGAAAGTTTGCTGTCACTTACTTTG
GAGTCAGCAAAAACATATTCTTCCGCAGGATCTTCCGGACGCGTGGGTCTGAAGCTTGAC
CT

Sequence 1365

TACTATAGGGCGNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCC
GATTGATTAATACCTGTCACAGATACATTTTGGTTTACAAATCAATGAACAATGGAGGGA
ACTCTGTCTTAATCTTGGTACGAGACAATGAACCCAGGTACTTACCCACAGACAACGAC
GCCGCTTNACCATGATGATGGACAACAGGCAACTTTTTTTTTGGAGTTTCAGCTTGCTTC
CAACAGGGACGGTGAGTGTGAGGTTTATCCCATTCTAAGACGATAGAAGTTTTAGCC
TAAGCCGTATTCTAGGTAAGCAGCTGGATTGCAGTTTTGTCTTGGAATTNTCCTTAA
TTGNNTNANNCGTTAANATTAACAACTAGCTGGNTNTTAAATTTTTNTCNTTACCCAT
TANAGGTNCCCCANAAATTNAAAATNAAATTTNTGCAATTAATTTTTGAACCTTGCCCC
GGGGTGGGCCCTGGCCCCCCTNGACAANGNTTTTTTTTTTTTTTTTTTTTT

Sequence 1366

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGCGAGGTCTTGAGTCG
ACCCACGCGTCCGGAGCTGCTCAATAGTGAGAATCAGGTGATATAATGCATGTGGAAAAA
GAATGTGAAAAATCTAACACTTTAGATTGTATACAGTGTTTTTAAAAAGACACAAAAAA
ACTGTCAACATGAGAAACATAAGCAAAGTTTTACTCAAGACAAACATCCACGAGTCACAA
CTTCAGTTATTTCCAGTCTTCAAATAACAGAAGGGCAAAGCAAAGGTAACATGCAAA

Sequence 1367

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGATTCTCTGATTAGATTTT
AAACTTTTTTGATGAAATATTGAGTCTTAAGTACTTTAAGATGCCATAATACTGAATACA
GTGCTAAGCAAAATAAATATTGACTAGTTCTCATTTCTATCTTTCAAATATTTCTAATGC
TCCTCTTTTATAGCATGGGCTCAGGCATCAGATGGCGTAGGTCAAGATCTTGCTCTACT
GTTTACTTACGGGAAATACTTTTATGTTGCTAAATCTCAGTTTTCTCTCTGTAAGACGG
GATTAAAGTACCT

Sequence 1368

CCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGAACATCTTGATTTACAAGGGACAAAA
TGATGCAAATTATATGCTGTCCAACCTACTGGTGAAGTGGATCAGAATGGTCCAAGGACT
GTTAAACAGAGGAAGTATTTACATTCTGAAAACCTTGGGACGCGTGGGTCTGAAGCTTGTA
CACCTCGGCCGAGGTACCTTCTGTCAAAAGACCCAAGCTTCTCCAGCTTCCAGGATAG
CAGTCAGCCAGCTGGAAAAGCCGAAGGGATCAGGGAGCCAAAGGTGACTGGGAAGCTAAA
GCAACAATCACCTAAATTACAGTCTCCAAGAAAGTTGCTTTCTCAGGCAGAATGCCCC
TCCCAAGGGCACAGACACACAAACACCGGCTGTGTTATNCCCATCCAAGACTCAGGCCAC
CCTGAAACCTAAGGACCATCATCAGCCCCCTTGAANGGGCC

Sequence 1369

CCGGGCAGGTCTGAGCGGCCGCCCGGGCAGGTTTCTGCATTTCTAATGAAGAAATAGGCT
GGTCTCAATTTTGCAGAAGTTGTATCATCATAGGTACATACCTAACATTCTGTTGTCAAG
AGCAAAAAACCCCTTGGGTTCTCTGGATCTCACACAGCCACAAACCTTCAGAATGTG
GTTCTTCCCGCAGGCTTTGTCACTTAAGATCCAAGAACAAATCAGCCTGGCTTTAAC
ATGGGGTAGATGGCAAGAAGGATAATGCGGACGCGTGGGTCTGAACTTGACCTN

Sequence 1370

CCGCGGTGGCGGCCGCCCGGGCAGGTGTGACCCACGCGTCCGACGACTCACTATAGGGA
TCTAGATCACGAGCGGCCGCCCGGGCAGGTACAGAGATTTAAATGAAATCTTCGAA
AGAATAAATTTGCTTTTCAGTCCACTGTATTTTCAAATTT

Sequence 1371

CCGCGGTGGCGGCCGAGGTACTTCAAAGTTATTGCACATACACTTGTCTTACTTTGTATGT
TTTGCAGGATTAACCTTTGTATAATCTTTTACAAAATTTTTTTTTCAGTATGCAAGCTT
GCAAGATGAAAATAAACCTGTTTGCCTGATAAAAAAAAAAAAAAAAAAAAAAGTGCGG
CCGGCCGCCCGGGCAGGTCTTGAGTCGACCCACGCGTCCGCCGGAGAnnnnnnnnnnnnn

Sequence 1377
CCGCGGTGGCGGCCGCCGGGCGAGGTAATCACACAACAGTTTCTTTTCCAAGTGCTGCAA

AGTGCATCTACATAATGCTATTACAGATCCACTTTTAAAGAGTTTCTGTGACATTACAG
CAAGCCTCTTTTTTCAAACAGAGGAATAATCCCAAATTCCTCCTCAAATAAACTCCATTCC
CAGTAAATGGTAAATACATAAAAAATTACAGTAAGCCAGACACTTAAAAGGACAGCCAAG
AAGTCTTCCAACAGTTTATTAGAAAAGAAATGTAGACATTTAAAAAAATCCCCACTGTCATG
AACATAAATTGAGGTTTTTTCAGCCCGGGTATAAGCTGAATCAAAAAAAGGAAATAAAAAAT
CCAATAGTGTATTAACATTTTTTCACTCATTTGCCATACTGACAGTGCAAATCAAATCTG
GACTAA

Sequence 1378

CCACTGGATTGACTCAGAGAGGACCCCCAGAGGGTGTCTCCATCTTCCCTATTTATTTT
CAGCCCTTGAGGGCTTCATTGTAGATCAAAGCCAAGGCCCCAGGAAGNGACATACTCC
TGGAAGTTCACCTCCTGGTCCTTGTTCCGGTCCAAGTCTTCCATCAGCCTTGCAATTTCA
GCATCCTGCAGCTTCNAGCCAATGGTGAGCTCCTTCTGGATCAGCTCCTTCAGCTCCTTC
TTGCTCAGGGTGTGCTTGTCAACCCTCCCTGCCGGAGATACCTGCCCG

Sequence 1379

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCAGGGATGGGAGG
CACAAGTTGTGATTGGGCAAAGTTTTATTTTCTATGTCAGCCTGTCAGTCCACTGCCCAT
TTTGCAAGACTTTTTTTTAGCCTTGACAAAATGTCTCAGTTAAGTATAAAAAGTTTTTCCA
CTACTTAGTCCAAAAAAAATATTAATCTTAATGAAATAGCCACTCTCAAAAAAAA
AAAAAAAAGGTGCGGCCGCGGCCCGGGCAGGTCTTCGACCACGCGTCCGTCTTTTTC
TTCCCAAACATAGACTTGCAAGACATGGCCTGTATGAGAAGAAAAAGACCTNAAGAAAGC
AACGAAAGGAACGCAAGAACAGAATGAAGAAAGTCAGGGGGA

Sequence 1380

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAGCACATTACAGTCAAA
TCCCTTCTCGCCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCTCC
GTGAAATCAATATCCCGCACAAGAGTGCTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAGTGCGGCCTNGAGCGGCCGCCCGGGCAGGTACATNTATTTTGATTGTATATTGNG
TTTGTGATTTACGCTTTGATTCATAGTAACTTNTATGGAATTGATTTGCATTGAACAC
AAACTGTAAATAAAAAGAA

Sequence 1381

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAATCTGTCAA
ATATACTATGAAATGCATAGTCTCCACTTAAAATGCTGAATGACACACACGTTTTGCAAG
CATTACTGCTTTCCACAAAAACTGCTGAATAGGAGTTCCGTCCCTGCCAAGATCAGTGTT
TAAGAGATACTTTATGATGCTGATAAGTATTATTGGTGGTGGTGGTGGTTCAGAAAGTTTG
TCACTCATGCAGATGTCTGAAATCTTGTTCCGAATCCATGGAACATAGGGTGGAGGCCAG
CTCCCCCTTTTTTTAGATGATCACATAGTTCTGAGCAGAGATGTGGTCCCTCACCCTGCAG
TTCTGCAGGAGCTGCTGCTGCTGGGATGGCTGCTGG

Sequence 1382

CCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCACGCG
TCCGATTTTTTTAAAGTATTTTCTAGTCTTTTCTCTCTGTGGAATGGTGAAAGAGAGA
TGCCGTGTTTTGAAAGTAAGATGATGAAATGAATTTTTAATTCAAGAAACATTAGAAAC
ATAGGAATTAAACTTAGAGAAATGATCTAATTTCCCTGTTACACAAAACTTTACACTTT
AATCTGATGATTGGATATTTTATTTTAGTGAAACATCATCTTGTTAGCTAACTTTAAAAA
ATGGATGTAGAATGATTAAAGGTTGGTATGATTTTTTTTTAATGTATCAGTTTGAACCTA
GAATATTGAATTTAAATGCTGTCTCAGTATTTTAAAGCAAAAAAGGAATGGAGGAAAAAT
TGCATCTTAGACCATTTTTATATGCAGTGTACCTGCC

Sequence 1383

CGAGGGAGTCTATTGGAGCCCTTGGAACCTCTGGATCAAATTGGACCTGAATTGAGATC
TATTTCTCAGCTTTCACTTATGTGAGCCAATAAATTCCTTTTTTGTGGAAGCAAAAAA
AAAAAAAAAAAAAAAAAAGT

Sequence 1384

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT

TABLE 1
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TTTTAACGTTTTTAATTAAATGGATTTATTTAAAAAGACTATAAAATCTGACATCAAGAGA
GATAAAAAAAAAAGACCCATAAGATTTAAATTGACAAATGTAAATGATTGGCTACAATG
TAAAAATACATTTNCCAGCCCCCAAACAAAACACAAGTATAGTAATTATAAAATTTTTGG
ACCTGCCCCG

Sequence 1385

AGGTCCTAGCTTGAGTCGACCCACGCGTCCGGCCGCTGTTTCGTATTTCTTATTCTACAAC
AAGGGTCAGCCTACAGGCAAAACACATCCCATTGTCATTTTTTTGTAAATAAGGTTGTA
TTNGGAACATGGCCACTCTCATTTGTTTTCTATTATTTATGGCTGCTTTCATTACAACC
TGAGTGGTTGCCACAGAACTGTATGGCCTGCAAAGTCTAAAATATTTACTATGTAGCTT
TTCTTTTC

Sequence 1386

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTC
CGAGAAGAGTTTGCAATGCAACAAAATATTTAATTACCGGTTGTTAAACTGGTTTAGC
ACAATTTATATTTCCCTCTCTTGCCTTTCTTAATTTGCAATAAAAGGTATTGAGCCATT
TTTTAAATGACATTTTGA

Sequence 1387

CTACTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTTTTTTTTGCTTCAACAAAAAAGGAATTTATTGGCTCACATAAGTGAAAGCTGAGAAA
TAGATCTCAATTCAGGTCCAATTTGATCCANAAGTTCCCAAGGGCTCCAATAGACTCCCT
NTCACCCTGGTACCTGCCCCG

Sequence 1388

TAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGG
GGAGGACCTAGGCAACGGCCTGAGACTCCGAGACTCTATGTTGAAGATGCCTGGACTAAC
CTACTGAAGATACCGTGTTTTACCAACAGCCAGCACCAATAGGAAGATATGAATGAAGC
CATCTGAGACCAGCCATCTGGCAGCCAACTGCCAACTGACTGCAAATGCATGAATGATC
CCACTGACACCACGTAGAGCACAAATGAGTTGCCTCCACTGAGCCCAGCCCCAAATTGTTA
TCCTATAAAATCATAAAAAACATAAACAGTTGTTTTAAGTCAAAAAAAAAAAAAAAAAAAAA
ATTAAGTGCGACCTGCCCGGNNCGGCCGGCCGCCCGGGCAGGTACCCATTAATTTGCTCA
GATATAGCAGGCTTAATGGTTCTATATTTCAAAGTTTTTAAGAATGGTT

Sequence 1389

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAATAAGCCCACC
CCACTAGGAACCTATGTTAAAAAAAAAATTCAAGAAAGAATTTAAGGGAGATTACAGTGTTA
CTGTGACACCAGGAAAACTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGG
GTTGGCCATTNANAAGGAAGCCTGGACAGGTCCCTTGTTTCAAAGGTATGACACAAGGTAA
CCCNTAAGCCAAGGCACCCAGACCAGTTTNCATACATAGAAAGTTACAGCTGCTTTTATA
CCCCCTTGCCCCGCCAACGTAGTTAAGAGAACAGCAGCATAAGCGGCTGGCAGAGGCAAG
GAAAGACCAGTAGAGAGAAAAAAGGCCATCTATACCAATTNTAAGTTAATTTAGACTAA
ACAAGGTCTTAATAGCAAAGGATAATTGAAATCCCAAACCTACAAGGTTTTTTAAC

Sequence 1390

CCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGGGTTTCATGAATGGAAACCTAAG
TAAACTAAGCTCATTAGTGACAGACTTGTTTTCTTCTTGTTATTCCTCCAGCAACTCCC
TCACCACCACGCTCCCTGCCTACCATCCCCGGAAGGGTGCTTATTCTTTACAAAGAGA
ATCTAAAAAAAAAAAAAGTGCGGCCGGCCGCCCGGGCAGGTGAGAAAACAGACCATATT
TACTCACATAATTCGCCTTCTACCTTTCACCTGCTTATGTAATAATTTAACACTGTAGAG
GGGACATGGAGGTGACCGGAGTATTTAGTGGGTTCTTGCTCCTGGGCTGGGCAGGTTCA
CAGGCCCCACAGGCCTTGGGCCCCAGCATC

Sequence 1391

CCGCGGTGGCGGCCGAGGTACTCTGAGGTCACGTCAAACCTATGCTTTAGAACCTTCATCT
TTTGCTTTCTTGGGCTTTACTTTCCAAAATGGACTACAGGATAATGAGGCTTTTTTAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAGT

Sequence 1392

TABLE 1
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CCGCGGTGGCGGCCGCACCTGCCCGGGCGGCCGCTCGAGGCCGCACTTTTTTTTTTTTTT
TTTTTTTTTTTTAAAAATTCAAAAAATTAGTTTATTAGCTTAATATAATTAGGTCAATGG
AATCCTGTTTTGATCTCAATACTTCCCATATTGCAATATATAAATGNGACAAATTCAGCT
GTTTTGTGGCATAAATAAGTGTCTAAGCTGGGCAGTTAGTCTACCC

Sequence 1393

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTTTTTTTTTTTTTTTTCT
TTTGAAACAATTTTTCTGAAATTTATTTCTAAAAGTCAGAGACAAAACCTTTAGGAGTGAC
ACATTTATACTAAGCATACATGCGTGAGCAAAAAAATAAGCACAGAATACAAAATGA
AATAGTAAATTTTAATACAGTATTCTGAATACAAGTAGAATACCACTAGATAAGAATTG
TATTTACCTAAGAAATCTATGATAGNGNGGGNGGAGATAAACCAAGTTTAGGATAGCCACT
TCACTATTACATTTTAATCAGTGCTGACCAGAAGCTAAAGCAA

Sequence 1394

ACTTAGGGCGATTGGAGCTCCCCGCGGNGGCGGCCGNGGTACAAATAAGCCACCCCACT
AGGAACTATGTTAAAAAAAATTCAAGAAAGAATTTAAGGGAGATTACAGTGTTACTGTG
ACACCAGGAAAACCTTAGAACTTTGTGTGAAATAGACTGGCCAGCATTAGAGGTGGGTTGG
CCATCAGAAGGAAGCCTGNACAGGTCCCTTGTTCAAAGGTATGACACANGGTAACCCGT
ANGCCAAGGCACCCAGACAGTTTCCATACATAGAAAGNTACAGCTGCTTTTATACCCCC
TTGCCCCGCCAACGTAGTTAAGAGAACAGCAGCATAAGCGGCTGGCAGAGGCAAGGAAAG
ACCAGTNGAGAGAAAAAAAAGGCCATCTATACCAATTCTAAGTTAATTTAGACTAAACA
A

Sequence 1395

CCGGGCAGGTACAAAAGGGTTCCTCTATATGCCAACTAATTCCAAATTTTACTTTTACT
GCAAAAAAACCTTTTTGGCATCAAACTCCATTGTTTCTCTGCACTCTGACACCATCATT
TCAAAGGGGCTCACATAAATGATCACTACTGCTCTCTCCCTAATTTTTGAAAAAGGAGTT
TTGAGAATAAAACAGTGCTTTTATTATTAGCCAACACAAAGTGTGAGAAAATCATTCTG
AGAATTAACATTTTAAGCTAACAGAAATTCAGTATACTTAAACATAATTATATTTAATG
AGTCATTATTTGGATCTAAAACGGACGCGTGGGTGCAAGACCTCGGCCGCTCTAGAA

Sequence 1396

CCGGGCAGGTACCAGTTTGAGTTGAAACGGTATGTGACTTCCCCAGCTGCGCCCTGGGCA
GTGACTGCATGCATCACTGAGAGGTCTGTCTACAGCAGATAAACTCCACAGATCACTC
CTCCTGTAATCCCTCTAAGTGCTCCAAGGCAGCAGAAAGGCCAGTGCAATTGAGGCTGGA
AGCAGGAGCAGAGACTCTGGGATATAGTGCGAAAGTCTCTTTCCCTGTAGTTGGGCTAA
TCTGGAAAACTCAAAACCTGGCCTGATTACCGAGGTTTCTTTTATGGATATTTAGTAT
TTAGATAAAATTTTACAGTATTCTTGAAATGAACCAATTAAACACATAGT

Sequence 1397

AGGTACTTTAATCCCGTCTTACAGAAGAGAAAACTGAGATTTAGCAACATAAAAGTATTT
CCCGTAAGTAAACAGTAGAGCCAAGATCTTGACCTACGCCATCTGATACCTGAGCCCATG
CTATAAAAGAGGAGCATTAGAAATATTTGAAAGATAGAAATGAGAACTAGTCAATATTTA
TTTTGCTTAGCACTGTATTCAGTATTATGGCATCTTAAAGTAGTTAAGACTCAATATTTT
ATCAAAAAAGTTTAAATCTAATCAGAGAAT

Sequence 1398

AGGTTTGAGTCGACCCACGCGTCCGGATTGATAGCTCTTCTCGATTCCGTGGGTGGTGG
TGCATGGCCGTTCTTAGTTGGTGGAGCGATTTGTCTGGTTAATTCCGATAACGAACGAGA
CTCTGGCATGCTAACTAGTTACGCGGACCTGCCCGGGCGGCCGCGCCGGGCGGAGGTGC
AAGATTCTGATCGGTATACAGTGATGTATTTACTAAACAGAGACCTGTGCAGAAATTAC
ATACTATCCATCTAGATAGGTTGTTACACTTTTGCCTATTGATGGAATAGTTCCATTTAT
CAAGTTTATACATCAAAAAGCTTTTGAAGTTCACCAGACTGTCCAT

Sequence 1399

CCGGGCAGGTACTGTAAATCTACTGTAATCCTGTTTTGCAGAATACTGCACGACGGAGAT
TGAGAAGTGAGAGCTCTTATGACATAGATAACATTGTGATTCCCATGTCAATTAGTAGCCC
CAGCTAAATTTAGAGAACTCCAATATAAGGGAAATACTTACTCCCAGGGTATGGTATAC

TABLE 1

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TTTACCATCTTCATANTTTTTCTTTCCCTTCCCTTCCCTTAAAAAACTNAANTTTTTTC
NAAGGTGGAAGAANTTTTTAATTNAANTGGAAAGGGANGCTTCCCTTCTTCCCCAGTTCC
CTTCTTAGCCNATGGGAGGGGGAAACCGGG

Sequence 1400

CCGCGGTGGCGGCCGATTCTCTGATTAGATTTTAACTTTTTTGATGAAATATTGAGTCT
TAACTACTTTAAGATGCCATAATACTGAATACAGTGCTAAGCAAAATAAATATTGACTAG
TTCTCATTTCTATCTTTCAAATATTTCTAATGCTCCTCTTTTATAGCATGGGCTCAGGTA
TCAGATGGCGTAGGTCAAGATCTTGGCTCTACTGTTTACTTACGGGAAATACTTTTATGT
TGCTAAATCTCAGNTTCTCTTCTGTAAGACGGGATTAAAGTACCT

Sequence 1401

CCGGGCAGGTACCAGTTTGAGTTGAAACGGTATGTGACTTCCCAGCTGCACCCTGGGCA
GNGACTGCATGCATCACTGAGAGGTCTGTCTACAGCAGATAAACTCCACAGATCACTC
CTCCTGTAATCCCTCTAAGTGCTCCAAGGCAGCAGAAAGGCCAGTGCAATTGAGGCTGGA
AGCAGGAGCAGAGACTCTGGGATATAGNGCGAAAGTCTCTTTCCCTGTAGTTGGGCTAA
TCTGGAAAACTCAAAACCTGGCCTGATTACCGAGGTTTCTTTTATGGATATTTAGTAT
TTAGATAAAATNTTACAGTATTCTTGAAATA

Sequence 1402

AGGTACTCCCATTTCCCTGAAACAAGCAGCCAGCAACTATCTCAGAAATGTGTCAATTTT
ACTGGTTATAATTCTTAAAAAGCTTGTTTTCTAAGATATGAAATGCCTGCCAGTATACA
AACTGCTGTAAGTACTTCCCTTTTTGCTTTTAGCGGGGAAAAAATAGCTTAATGACAGCA
TAGAATCATGTAGTAAATATAATTCATTTTTTGAAAGGTTTCACTATATCCTCTTCCATT
TGTTTATTTTAAATGATCTAATTGCAAACATGTCATCACTCCCTTGATGTTTACCTNCTT
GTTATGCATTTTATGACAGGCTTTATTGTACCC

Sequence 1403

AGGTCCTAGCTTGAGTCGACCCACGCGTCCGATTTTTGCCTCCAGACTACAGATCAGAAA
ACTGAGACTCAGAAATGTTTCAATTCCTTGTTTAAAGATCACAAACTAGTTTGAGGTATAA
TGGAAACTGAAAAAAGTGGCGCCGCGCACTTTTTTTTTTTTTTTTTT
CAATATTATTTATCAAAATAAATTTATTTAAAGTATTCAAAGACCACTCAAAGNGTAGC
TGCCCTCAAGACAGATTTTGGCACTCATAACGGACACTGCAGTTTTCAACACCATAGCA
CTCATTCTATTTACACATCATTTTTAACA

Sequence 1404

AGGTGTTAGTTACCACTTCATTACTGGAGGGCACTGTCACAACTTCTGACTATCCAGAC
TTGAAGCTGGAAGCAAATACAAGTCTGAGGGGCTCTAAGCTGGGAGGTTCTGGCCTCTCC
CTAGCTCTCTATGGCTCTACCTCTCTGCTTGAAGCTCCCTGCACTGCACTCCCATTACTC
TGACTGGGGATAGGACCACTGCTGACAGGGCCCCACCTTCAACTTCTTTCATTGCTCCTC
TTTTCAGGAAATCCCCACCCTGGGGATACTTCAAAAGACCT

Sequence 1405

AGGTGATTTCAGCAGGTCTGGGGTGGGACTGAGAGCTTGCATCTCTAACAAGCTCCCAGCG
AGGCTGATCCTGTTGCTCCAGGGACCACACCTTGAGAACCCTGGTTGGGCATTGATGAG
GTCAACCAGGAGAGCAGTGTCCCTAGAAGTGGCAGGAGAGAAAGGACAAGGCTAAGAA
ACAGTGAACAGGAGTCAAGTAAATGCAGCTGCCAACAGGCGGGGGTCTTGAGTTCACAT
TCTTGGTCCAGGTGACGTTTCTGGGAGTCAACAACCCTTCTCCTATGAAAAAGAAAAG
GGCCAGACACAGTGGCACACGGCTGTAACC

Sequence 1406

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGTCCCTAAATATTTAAC
TGTTACTTGTAACCTTGTTGTAATTTATTATTTATTTTAAATCAAAATTCTGAATATTTTCA
TTAAATGAAAGTTGCAAAAAAAGTGGAGGGGAATTCATTTTCACTGAGGAGTGTCTTATGT
ACATACCTCCTTGACAAATGGAGGGGAATTCATTTTCACTGAGGAGTGTCTTATGT
TATAAAACCATGCTGGTATATGGCTTCAAGTTGTAATAATGAAAGTGAATTTAAAGAA
AATAGGGGATGGTCCAGGATCTCCACTGATAAGACTGTTTTTAAAGTAACTTTAAGGAC

Sequence 1407

TABLE 1

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AGGTACTCAATCTAATCCAAAATTTTCTTTCTTAGCAATCTATTTTCTGTATTTAGAAAA
ATGTTTTTTATTTCAAAGAGCCTCTCAAAGAGCATTTACGTATCTTTTACTGTTTTCT
CTCCACCTCCAAGGGGTCTGTCTAGATCAGTGCGGACGCGTGGGTCTGAAGACCTGCCCGG
GCGGCCGCGCCCGGGCAGGTAAGTACTGAGGACAAATCAGTTCTCTGTGACCAGACATGAGA
AGGTTGCCAATGGGCTGTTGGGCGACCAAGGCCTTCCCGGAGTCTTCGTCTCTATGAGC
TCTCGCCCATGATGGTGAAGCTGACGGAGAAGCACAGGTCTTCACCCACTT

Sequence 1408

AGGTACATATCACACATTTCCAAAATTTGAGACCACTAATGTTTTTAAATTTCAAATATGT
ATATAAATATGTATTCTTATTTCCAATTATTTCTTGGCATGAATTCCTAGAAATTGATC
TATTTAGTATAAGTGCTTTTTTAGCTATATGTCCACTAGTATGGTATGAGAATGCCCTGT
TTATGCCAGTATTATCATCATTGAATATTTACTGCTGATGTTGTGGTAATACATTTAAA
CCAATGTGATGGGGCAAAAAAATTATTTTTTACTTACATCTTTAAATTTACTGGNGATC
TCTGNTATTGACAAGCTGGGCATANAAAAAGTAAATTAATAGAATT

Sequence 1409

CCGGGCAGGTCTGGACGCGTGGGTCTGAAGCTTGACAAAAACCCAAGTATCACCTGAATTA
CAATTATCTTAAAATTTGTCCTTAAATAGCTTACTCTTGGAAGATTTGTTTCTATGTAG
ACATTATGGTAAAAGTTACTCTGAAACTCTTTCTTTAGTTATCTGTTTATTCTGAGCTC
AACAAGATTGAAGTAAGTTTTCGGGAGCTACAGAAATTAATCAAGAAAAGAATAATAGA
GGATTATATTCAATTGAAGTGCTGGAGCTCTTCTGATATTATCAATTCTCCTTCATAGAC
ATTTTATAAAGCTCTTTTATGTGAACCTCTTGCTTCATCCAGGCAAG

Sequence 1410

AGGTCTTCGACCCACGCGTCCGTTTTAGATCCAAATAATGACTCATTAAATATAATTATG
TTTTAAGTATACTGAATTTCTGTTAGCTTAAATGTTAATCTCAGGAATGATTTTCTCA
CACTTTGTGTTGGCTAATAATAAAGCACTGTTTTATTCTCAAAACTCCTTTTTCAAAAA
TTAGGGAGAGAGCAGTAGTGATCATTTTTATGTGAGCCCTTTGAAATGATGGTGTGAGAG
NGCAGAGAANCAATGGGAGTTTTGATGCCAAAAAGGTTTTTTTTGCAGTNAAAGTAAAAA
TTTGAATTAGTTGGCATTATAGAGGAACCTTTTTTGTACCTGGCCCGGGCGGCC

Sequence 1411

AGGTGATTTCAGCAGGTCTGGGGTGGGACTGAGAGCTTGCACTCTAACAAGCTCCCAGCG
AGGCTGATCCTGTTGCTCCAGGGACACACCTTGAGAACCACTGGTTGGGCATTGATGAG
GTCAACCAGGAGAAGCAGTGTCCTCTAGAACTGGCAGGAGAGAAAGGACAAGGCTAAGAA
ACAGTGAACAGGAGTCAAGTAAATGCAGCTGCCAACAGGCGGGGGTCTTGAGTTCACAT
TCTTGGTTCCAGGTGACGTTTCTGAGTCAACAACCTTCTCCTATGAAAAAGAAA

Sequence 1412

CCGGGCAGGTGCCTAATATATTTACTCTCTGGTCCTTTACAGGAAAAGTTTGCCAACCTC
TGGCTTAGATGATCACCTGAGGCCAAGGAGCCTCGCCCTTGAGCACAAGACTATGTAGTC
AGTAAAGCACAAACAAAATTGGGGCTTTCCCTAGCAAGGTTGGAAAGGCGGAGAAGAAAT
GGATTTGGATAGGTAGTCAACAATGTCTGTTTTATGTTACCACACATTTTCTCGAGAAAT
TTCAATCAGCTCTCTGAGAACAGATTCTTTAAATGAATGTTCATAGGTAACAGCAAC
TCATGCATCAATGTTGCAAAGTGAGCTCATTTTCACATTGCTTCAG

Sequence 1413

AGGTCAAGCTTCGNTCCACGCGTCCGGGAAAAACGGGGTACTAGTAGCCGCCCATAGCC
TGCAACCTTTGCACTCCACTGTGCAATGCTGGCCCTGCACGCTGGGGGCTGTTNGCCCT
GGCCCCCTTTGGTTCCTGGCCCCCTTAAANAACAGGCNGGTTTTATTAAACCCCAANNNN
CCCGGNTTANAAGGGGAATTNAAAAAAGGGCCCCGGCTTTNGNAAAAAAAAAAAA

Sequence 1414

NCNGNCCAGGTCTACTCAAGTAGTCTTTACCCCTACTCAAGTAGGGGGTAAAGNGTAGA
ACANGGAGTTTTGATCTGTGTTCAACATGATTGCGAACCATCAATTGAGATAACTCACTA
CCTTCAGGCCAGCCAGNTACATACTTTGAAAAGCCAAGAGTGAAGCANGGTTGATNTTC
ATCCAATTCTTGNNCTTTTTGTTAAAGGCANNAATAAGANAGGGTGGNTNCGGGCAATCA
CTTAGCTAA

TABLE 1
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Sequence 1415

AGGTCTTCGACCCACGCGTCCGTTTTAGATCCAAATAATGACTCATTAAATATAATTATG
TTTTAAGTATACTGAATTTCTGTTAGCTTAAATGTTAATTCTCAGGAATGATTTTCTCA
CACTTTGTGTTGGCTAATAATAAAAGCACTGTTTTATTCTCAAACTCCTTTTTCAAAA
TTAGGGAGAGAGCAGTAGTGATCATTTATGTGAGCCCCCTTGAAATGATGGTGTGAGAGT
GCAGAGAAACAATGGAGTTTTGATGCCAAAAGGTTTTTTGTCAGTAAAAGTAAAATTT
GGAATTAGTTGGCATATAGAGGAACCTTTTGTACCTGCCCGGGCGG

Sequence 1416

AGGTGTACAAGCTTCGACCCACGCGTCCGGGATGAGTTTGTATGTGTAAAGTGCTTGAAA
CAGTGCCTGCCACATACTAAGTGTTGGATAAGTGTTTATTAAAAA
AAGTGCNCGGCCGCGCCCGGGCAGGTCAGATGATTGCAGAATTTATGTGATTACTGGGT
ACTCTAATGGTAAGGAGAAATTAAGACCAGCTAGTTGTTAATCTTAACTTTTAGTCATTA
AGGAGAATTTCCAAGACAAAACCTGCAATCCAGCTGCTTACCTAGGAATACGGCTTAGGCT
GAAAACCTTCTATCGTCTTAGAAATGGGA

Sequence 1417

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGTAATCCTGTGAGAAAG
ACAGGACAGAAACCACTGTGCCTATTTTACAGATACGAAAACCTGAGGCACAGGTAAAGGG
GCTTGTCTGTAGTCCCATAGCTAGCAGATGGCTGGAGCCAAGACTGAGGCTCGTTCTTCA
ATGCTGAGCCAGGGCTCCTTCCGCTGCACCACAAGAACGCTAGACCACTCGCCACCAGCC
TTCTCATTCCCTCTTCCCTCATTCTAATCATTTCTAGCTGGCTGGCCTCCACAGAGCATA
GGAAACAGCCAGGGCCGGGCACGGTGGCTCATGCCTGTAATCTCAACACTCTGGGAGGC
CGAGCCGGGTGGATCACCTGAGGTCAGGAATTCGAGACCAGCCTGGCCAACATGTTAAAA
CCCCATCTCTACTAAAAATATAAAATTAGCCAGGCATGGTGGCGCACACCTGTAATCCC
AGCTACTCAAGAGGCTGAGGCAGGAGAATTGCTTAAATCTGGGAGGCGGAAGTT

Sequence 1418

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCCGGNCCGAGGNCAAAAGAGAGACAAAAGG
GTTCTCTTGAAACAAGAAGAGTGACTCCAGATGTGGCCTGAATAATTGCCATGTTAAGT
TAATGCAAAAGATCAGAACAGGGCTACATTTGCACAGGCAGTTTCTCTCCGGCCGTAGT
TTTCACTGATGATCACCTTTACAGCATTTTCCCCAACCAGCATTTCACTTAGTCTTCTC
TATACCCAGCACCTCCCCCGGCACCCCCGGCAAGCCCACTATCACTTCCGACTTCCAACG
TGGCATCCGTGAGATCTGTCCACATTAGGCGAAGCAGGAGAACACTGAGAGCAGCAGGAT
GGGTTTGAAAGAGCATGCCTCTGGAAACACAGCTTCTGGGAATTCACATGAGGCCAGT
CCTACAGAGAGCAAGATGCACCCAGGATTTCTTCATTTCTAATAGATGTGGGAGTGCT
CCATTTTCCCGACAGCGAATTTCCCTGAGAAACGATACTAGACCCTGGGTTTGCCAC
CTTGTAACCTCTTCTTATCTNCTCCTTTTCATCCCTAATTCA

Sequence 1419

CCGCGGTGGCGGCCGCCCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGT
CACCACACTCTACAGAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAA
CTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCC
CAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGG
CTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACC
AACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATA
TTCCAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAATATTGA
GGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGTTATT

Sequence 1420

CCGCGGTGGCGGCCGAGGTACACTGTAAATAGCCTTTACCAAACGTGTTTGACAAGGACC
ATAATTAACATCACTTAGTGAATTGTGATAAAGAAAAAAGCCATGATTTATTGATGT
GATTGGCTTGTTTTATGTGGCGCCAAGAACGAACCTGTTTAGCAGCTGTAAACCAATGGT
ACGCGGGGGAGGCGAACAATGGCGGAGCTGGGCGAAGCCGATGAAGCGGAGTTGCAGCGC
CTGGTGGCGGCCGAGCAGCAGAAGGCGCAGTTTACTGCACAGGTGCATCACTTCATGGAG
TTATGTTGGGATAAATGTGTGGAGAAGCCAGGGAATCGCCTAGACTCTCGCACTGAAAA

TABLE 1

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TGTCTCTCCAGCTGTGTAGACCGCTTCATTGACACCACTCTTGCCATCACCAGTCGGTTT
GCCCAGATTGTACCTGCCCCGGCCGCTCTAGAACTA

Sequence 1421

CCCCGCGGTGGCGGCCGAGGTACTTTGGGAGACCACCCCCAGCTATGGTTCCATACACTT
ANACTGCGCCCAGCTACAGNTTNATACACTTNGGACAAANTATCTGATAAAATAGAGAAA
AAAATCTTATTTACTATAGCATTACATAATAATTTNTGAGAAAAAATTAACCAGGGAT
GTAAAAAACCTTTACAATAAAAAATAAATAAAAAAGGAAGATCCAAATAAATTTTAAAT
ATTTTATGTCTTTGGATTGAAAGAATAAATATTAATAAAGTGCCATATTATCCAAAGTGA
TCTATAGATTCAATACACTTCCTATCAAAATTGCAGTATTTTTTACAGTAATGGAAAT
TCAATTCTAAATTTACATGAAACTAAAATAAACTTTGAATAGCCAAAACAGTCTTGAGG
AAAAGGAACAAGGCAGAAGAATATCATACTTACAATTTCAATCTATATTTGAAGACTTTA
TAGAANTAAAA

Sequence 1422

CGGGCAGGTACGATGGGAGGACAGCTTTGTAGAAAGGACATTATCCAGCTAATAGCAAAC
TTTGTGGATCCCAATCCGAGATTTCCCTTGCTGAAAGACAAGAAAGTATCTCATATAAAA
GTGCTGTAGCAAAGTATTTGTATACTCCAGAAATAAGCTTCTGTAATTCTTAGCTGCCAAT
GTGTTCAAGCGTGATGACTCGGTTTCTGTTTCTCTGAACATCAATACTAGGGTCTGTATA
ATTTCAATGCATGCCACCAGCTTCATCAACCTT

Sequence 1423

AGGTACAATCAGAATGCTGCATTCTCCAGCCATAAAGATCGCTCCCTCTTTTCAAAC
ATCCCTGTCCCTCAAGGTCTAGCTCAAGACGGTCACCTTAAGAAAAGCTCCCTTTGTGCA
GCAGTGACTCCATACCAGGCCCTGCTTTAAACGCTTTATCTGCATTATCTTACTTGATTC
TCGCAATAGCCCTGGGTGGTAGGTGCAATTATTATCTCCAGTTTATAAAGAAGATACTG
AGGGTCAGAGAAGTTAAGTGACCGGCTCAAGGTGTCACATTCAGTAAGCGTTGAAGGGGC
CTGTGTTGGTCTGTCTTGAAGATGCCCTTACCGACTACACTTTCAATGATTTTCTGCC
TTGAACCTGGCCCCATGACTAAA

Sequence 1424

NNCAAACCTCCTATGCTTTCCTTGGCATCGGCTACACATCATAGTATTCATTGCCTCCTT
GAGGTCATCTTGCAGCTTGGACAGAACTCATTTACTGACCGGCTCAGCTCATTCTCTGC
CATTCGTTTCATCTCATACTCCTTTGCTTTTCAGCATTGCTGACAATGTCCCAAGCTGC
TCGCAAAACCTTGAAGGCCTCCTCAGCCCGGGGATGATGATTTTTTGTGAGGATGAACCAT
CACTGCCAGCTGTCTATAG

Sequence 1425

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTGAAGTGAATTTCCC
AATGGCTCTTTGTGCAGCCGAGCAGCTGTTGAGACTTATGAGCAGACAGGAAGTCCCA
GAGGGCAATGGTGTGTTTTAACTGGCATCTGTTTAAGGCCTTTAACACGTGAATCGTCTG
ATCACCCATTTGCAGGATGTCTTGAGTATACACATTCAGCTGCATGTTTGGATCCCCACC
AGCTGTGCTCAGAAACCCAGAGTGACTTCTACGACAGACAGCACTTCACAGGCATCGCT
GTAGGACTGCAGCTGTCCACTGATGGCACTAATGACCGAGCTGGGGAGGGAGTCCTGGGA
AATGAAAAGCAGGAGAGGGATGTCTGTGGGCTGGGTTTCTGGCATCTCACCACCTGGTAA
GAGAGCCGAGCCCCCTTCACTGCCCAAGCCACATGCC

Sequence 1426

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTGGGCCAAGGCTGCAAT
CAGTGATTGAGCCGACTGCTCTTTGAGTCCAGATGTTGATCCAGTTCTTGCTTTTCAACG
AGAAGGATTTGGACGTCAGAGTATGTGAGAAAACGCACAAAGCAATTTTCAAGATGCCAG
TCAATTGGATTTGTTAAAACACGAAAATCAAAAAGCATGGATTTAGGTATAGCTGACGA
GACTAAACTCAATACAGTGGATGACCAGAAAGCAGGTTCTCCAGCAGAGATGTGGGTCC
TTCCCTGGGTCTGAAGAAGTCAAGCTCGTTGGAGAGTCTGCAGACCGCAGTTGCCGAGGT
GACTTTGAATGGGGATATTCCTTTCCATCGTCCA

Sequence 1427

AATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACATCACCTGCTGAGGGACATCCAGGAC

TABLE 1

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AAGGTCACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTC
ACCAACTTGACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTG
GACCCCAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGG
CTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTAT
CAACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTA
CCATATTCCCAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAAT
ATTGAGGATGCGCTCAACCAACTCTCCGAAACAGCAGCATCAAGAGTTATTTTCTGAC
TGTCAGTTTCAACATTCAAGGTCTGTCCCAACAGGCACCAC

Sequence 1428

AGGTACAAATAGATACCTTCAAGGAGAATGAAAACGGGGAATATACTGAGCACTTACACT
CGGCCAGCTGCCAGATCAAAGTTTTCAAGCCCAAAGGTGCAGACAGAAAGCAAAAACGG
ATAGGGAAAAAATGGAGAAACGAACACCTCATGAAAAGGAGAAATATCAGCCTTCCTATG
AGACAACCATACTCACAGAGGTAAAAAGATTTCTTTTGGTGACAATTCAGTTCATAATT
TTAATCTTAAAAATTCATCACTTCCAAACTGGTCAGAATTTACTTCTCCTAAGCCTTGA
GGGACACAGTATCACATGGATTCTGTGTCCAGCGGCCTTAACAGGAAGATTGCTTTAGAA
TTTGGCACGAACCATGCCACTGTCTCTGT

Sequence 1429

NCNGNCCAGGTACTCNNNNACANTGNAAACTNNTCANGNGCCCATCATTGCTGGATTTGT
ATTTAACATTATGTTTCACCCAGACAACAGCTCAGAGAACTGGGCAATGGCTGCTNATGT
GTTGAGCCGGGGCATACAGGATGAAGAGGGACAATGAGAGGGAATGAATTCTATTCTANA
CACCTGAGTTTGAGGAACCTATGGAATGTCCAGGAGGCAACTAAATGAAACAGCCTGT
GGTAGACAGAATAATGGCCCCAAAGATGTCTACAGCCTAATCCCAGGAGCCTGTGAAAAT
GTTCCCTTCGCATGGTAAAGGGATGTGGCAGATATGATTAAAGCTAAGGATCTTGAGATGG
AGAGTTTATCCAGGATTATCCAGGTGTGCCAGTATAAT

Sequence 1430

AGGTACGCGGACACAGGGTCCTGTGCAACANGNGGACTAACAGTAACACCGCCACGCC
GGCAGCAAAGCTCATTTTGGTCCCCGCCCGTTCTCTTTCTCTTTTAACTCCTTCCCT
CTTTGCGGATTCTAGAACGGAACCTTTTTTTAATTCTTCCCAGTAGAAACGTAGGAACAA
TTTCGTGAACGCAATCNGGAGTGCCCAACATGGC

Sequence 1431

AGGTACCCCTGTTTAAACAAGGGGTAGGGGCTTCTGAGACTGTTTCCTCTACAGAGTAAG
GGTTCGTTCAACCTTTTCCGTGGCCTGCCAAGAACTCAACTCCATGTTCCCTCACTTCT
GTAATTGACCTTGTCCAGGACTTTCTGACCTTGGAGAATTCACCTTTGCTCTTTCTGCTG
CTTCGTGCATTCTTCCACCAAATGTCTTAACTGACTGGGCTCCTTTCCAACTCAAGGGC
TTTGCCAAATGCCACCAGCTCAGGGAGGCCTTTNCTGGCCATGACACTTGAAGTTGCAAC
ACTCCCCCGCAGTCTCCCGTGCCCCAGATGTAAGTTCCATGAGGGCAAGCCCTGTGCTTT
TACCACCATATCCCCAGCATCTTGAGCTGTGCCTGGCCCAAGAAATATTTGTTGAATGAA
TGAATTTAAAGGGGATATTCATGANGGCTTACACATTCTCAATGGGT

Sequence 1432

GGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCAGGTACTTTTTTTTTCTTTTT
CTTTTTTTTTTTTTTAAAGTTTTTGGGATCGTGTCTCACTCCTGTTGCGCATGCCTGTA
GTCCCAGCTACTCAGGAGGCTGAGGCAGGATAATTGCTTGAACCCGGGAGGTGGAGGTTG
CAGTGAGCCGAGATCATGCCACTGCACTCCAGCCTGGGCAACAGAGTGAGACTTTGTCTT
CGGAAAAAAAAAAAAAAAAAAGATTTGGCGGATGAAAATAACCAGAATGAAAATAGCTNGAA
AACTCANCAAGCAGGAAGCTCCCTTCTCACCCTTTTGTTCCTTGCCGATAGAATCAGT
CACTATTAGAAAAAATGAAAGACGCTCTGTTTAAACAATGATGACAGCAGTACCT

Sequence 1433

GCGGTGGCGGCCGAGGTACTTCCCTTTTAAAGAGATGAGTCACCGCAACTGAACTTCTCT
ATTTCTTTTCTTTTCTGATTGTTCTCCAGAATTAGGACTAGTAACAGTCCTGAANNCTTG
TNTTTCCTTATCTAGAAAACCTCAGTATCTTCCCTTCCGTTTGTCTTAAATATTAGTACA
CGCTTCTCAAGCCTAGCCGATTAGAAGGGGCTGCCGGGCTTCCACCACACCTCATCGAG

TABLE 1

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GNAATGGTTTTNTGGNNAAAAAGCCCATGGAAATACTGAGCCCATGCCNCTCACGTTGNA
AAAGCCCCGTTCCCTTGCC

Sequence 1434

AGCTCCCCGCGGTGGCGTAACTTATCTCATTTTAGATNAGTTTGCAAAGAGAGTTGGTGG
CTAAGGCCATAGCTTAGCCTCCTGACCCCTACCTTCCCACGTTCTTTCCAAGAGATTCTC
CTCAGGAATAACACTTGCAAGGGAGTTCTGATGAAGTGGATTCTTGTTATTCTAGGAAT
AGGCCTACATGGTGCACCTGGCAATGTGAGATTATACCTCAGCATTTCAAAGAGCATAAA
AATCTAGAGCTGGGGGGTTTTAAACATGACAAACCTAATTTTAAGTAGGCAGACAAATAT
TTAAATTTTCCCCTACCCCTGTTTCTACATCGGTCCATTGAGACTCTGCACCATCTGGT
TGGGCAGGTGCTACTGTGGAAGATCTTCGTTTTCGACTACCATTGGTGATTCTTGCTTT
AAAGTCTCAATATCAGTAACTGAACAGATTNCCACCACCCCTGTTTTATAAATATCAC
CCTTAATTAGTTTAAGTTTCAATCTCCCCATCGGAGGCTAGTTCCTGGTGGGTGAGCATG
TACCTGCCCNNGGCGGTCTANAACCTAAGTGGATCCCC

Sequence 1435

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTNTTTTT
TTTTTTTTTTTTTTTTTGGAGCCAAAATTGTGTGCATTCTACTGGGAAACACAGTGGCC
AAATCCTTTTGAATTGTTTCCTTCTAGAGACTTTAACTCTTCTGACTGCAAATCTTAGTG
TCCTGTGAGTATTAGTTGATTAATTATACCTTGCTGCTTAGTGAAATACAGCCAGCTATAG
GTATCTTCTGGAGTAGCTCAACACAACCTTTTCTTCTGCTAGAGTGACTCTTGCTAACAGA
ACCCAAAGATGCGCACATATACCCACAGGAGCTGGAGGTCCCTCGCATGCTCCTCTCGTG
CCAGCCTTTGCCTTACCCTTCACTCTCTCCCTCCAGGAGCCGTCGGTACCTCGG

Sequence 1436

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGATTTGTCTTGCTC
ACCTCTTACCAAATCCAAGAATGGTTTCTATCCAGTGAATGGCAAATTCATCTGATAGGT
AAGGGAATAATGGGTCAAATGGTAGCAAACACTTCTTTCAAATTTCTACTAAAGACTT
GCTGTTGTTTTTCTTATAAAGGGGCAATTTCAACATACATCTTTTAAAGGAATCTCT
AGAAATTTGAGTGACTTTTTGGCCATAATCCTGTTTGATATATTTTGGTCAGCTGCTCA
AAACAAACATTCTCCTTGTAAGGTTATCTATCTGAAAGATACTAATTCATTTAAAGCAGC
TGCAGGTGAACAACCTAAAGATGACATGATTTGGGAGAAGAGGAAGGCAGATTACTGAAC
TGACAAGTGACCCAAAGCATAATTAGGTTTGTGCACATGGTAGCATGGAGGTCCACACC
TACCTTCTACAGCGTATTAATAAAGAATATTGTCTTTGAAACATCTTCTAGCACCTTTT
TAATAAAACAAAATTTCCCATCTTCAATTCTATTTTTTCCCAAATCTACCTTTAAAAAA
TTGT

Sequence 1437

CCGCGGTGGCGGCCGAGGTACAATAAACAGGGAATGAGAACTATTTACATGGAAGTTTCT
TTCTCATGATGCGGTGGAGAAGCCTCGGCCACTTGGTTCTGCCAGATGTTCTGGGGTTA
CTGTAATGGGAAGGACAGGCAGAGCTAAACAAGGTAGGAGAATCGCCCCCTTTTTTGA
ATGTTTAAAGAGTTTGCTGCAGTATGCTGCATTCCATGTGTGCTGCTTACGGGAGCCAGG
GAAACTGGGATTCCACTAATTCAATTGTAATACTTGCAGGGGACCCCTGGAGTTTTACGTA
ACATTTTGATTTGGGAAAAAAAAAAAAAAAAANANTGTTCTGCCCCGGCG

Sequence 1438

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTGCCAGGC
ATGCTCCTGCCTTGGGCAGAGTGATATGTGTGAGTGACCTGCCCTTCCACAGCCTAG
AACGTTCTCCTCCAGACAGCACATATGGCCTGCTCTCTCACTTCTTAAGGTCTTTATT
CAAAAGTGACTTTCTCAGTGAAGCCCTGTCTGCTCACCCTGCGTAAAATTTAGCTCTTC
TTTCTATCTCTTCCCAGATTTTTTTTCTCCTTCATGTTGTTGGTGTCTAAGGTTTAT
CATCTATTTGCTAATGGTCAGTAGAATGTAACCTCCACGTAAGCAAGGAGTTTGTCTG
TTTTGTTTCATGTCTATGTCCTTAGTGCTGGAGCATTCCCTAGTATGCAGTAGGTGCTCA
ATAAATGTCAGTTGGATTAATGGCTGAAAGAAAGGTCACCGCTATAAGGATGGAGTCAGA
GAACAAACACAGTTAATTCCTGGTCCACTGTTTTTGCTTCCACTAAATTGATTTGGTCT
ACGGCTTCTCCGCTTGCCCTGGAACCTGCTCAGAACACTGCTCCCTTCTCCTTCTTCTT

TABLE 1
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CTCCCTCCGGATAAATTCT

Sequence 1439

CCGGGCAGGTACCGCGGGGGGCCGTGGTCAGAGCGAGCTTCGGAGAAGCAGTGGTGGGTT
CCATGTGATGGTGGAGTAGGAGGCAGGTCTCCGCGGTTCATCTGTGTTGCTCTAAATGAC
ACTGTTTCATTATTTTGATGGCTGGAGAATATTTCTAAGTGTATGTATATGAAGAAGTT
TCTTGATCTCTTTATCTGTGGATGAACAGCTACTTTGAAACATATGGTACCTCTGTGGTC
AGACCATTTGCCAAGCTTGTGAGGCCTCCTGTTCAAGTATACGGTATTGAAGGTCGCTAT
GCCACAGCTCTTTATTCTGCTGCATCAAAACAGAATAAGCTGGAGCAAGTAGAAAAGGAA
GTTGTTGAGAAGTAGCACAAATCCTGAAGGAACCCAAAGTGGCTGCTTCTGTTTTGAATC
CC

Sequence 1440

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCANGGTACGCGGGTGCT
TTCATAGCCGCGGACACAACCTTGGGCCACAGTTAACCAGAGGAGGAAGGCAGAGCGTGCT
GAGCAGAGCACCAAGGAAGAGAGCTCGGCTAGCCGGAAGGTCCGAATGGATTATTTGG
TGAGGCCAAGGAACCCACTGCCTCCACGGTGTTCTCCAGGAGGCTCCTCCCTTCACTAA
GGCAGCAAGGAGTGCAGTGGTGAGGGGAAGAATTGTTGTCATCCTTTCTCTACGACTCCA
AGAGAACTTTATACTGGAGGAAGAATATTCTACCCTTTGGGATGCTTCCAAAGAAATG
GGATACCAAAGGAGTGAACCTCAGGTCAATTGGAAGTGGCCAAGCTGGAGGCGACCTATGG
AGACATGACCTTCAGTTCCTCCTGAGATCGATAAAGCAAAAAAAAAAAAAAAAAAAAAAGT
ACCT

Sequence 1441

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGATATTGTCAATGCGCAACATGGAGAG
ACTTTAAACAAATGCTAGGGATTAGAGTATAGATCAGATAGCTGGCAAATCTATAGGAA
GGGAAAAGTAATTTTAAACACACAGCATTGTTTCCTGCTGCTCTATCACAATAGCTAGG
TTTTAAATAAGTAGGCTTTATACCAAGCCATAAAATGAATTGCTGGGGCTCTTTGGGA
CTAGGGAAGGCGGAAATTTTAGATATTGCTGTTGGCTTAGTGAAATGCATGCTTACCC
GGTCACCTGTGGCTCCAGCAGGACCAGGGGCACCTACAGCACCAGGAGCACCTAGTACC
T

Sequence 1442

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCTTATTACATA
TGATTTTTATTAGTTTCTGGAGGCAAATTTAATTTTATTTTAAAATCAAATCTATTTT
AAAAGAAATAGTTCTCAAAAAGACAACGATGACTGGGTGTGGTGGTGTGTGCCTGTAGTT
CAGGCTGCTCGGGAGACAGAGGCAGGAGAACCCTTGAGGCCAGTTCAGTCTAGCCTGGG
TAACATAGCAGGACCCTGTCCCTAAATAATAAAAAATTTAA

Sequence 1443

CCGCGGTGGCGGCCCGCCGGGCAGGTACTAGGGTGCTCCTGGTGCTGTAGGTGCCCTGG
TCCTGCTGGAGCCACAGGTGACCGGGTAAGCATGCATTTTCACTAAGCCAACAGCAATAT
CTAAAATTTCCCGCCTTCCCTAGTCCCAAAGAGCCCCAGCAATTCATTTTTATGGCTTGG
TATAAAGCCTACTTATTTAAAACCTAGCTATTGTGATAGAGCAGCAGGAAACAAATGCT
GTGTGTTTAAATTAATTTCCCTTCTATAGATTGCCAGCTATCTGATCTATACTCTA
ATCCCTAGCATTTGTTTTAAAGTCTCTCCATGTTGCGCATTAAACAATATCCTAATGCACT
GAGGCTTCTCAAAGCCTTCAATTATTACCAAAAAAAAAAAAAANNTTNNNAGGTACCT

Sequence 1444

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACAAAGACCAAT
TCCTTCTTAACCTGGATTCCACTGTCTTGGTGAAACTACTTTGATGGAACCTACCAGA
TGCTTTATCTTTTGGTTAAAGGAACCTATACCTGTNGAAATTCACACTGCCACAGNGATAT
TTGTTTCTTTCCAATTATNTGTTGCAACANAAGATGACTTTTATACCTCTCACAATCTGG
NTAAAATCTTGCTTGTTCCTAAAGATACCAAGTGACAAAATCCGTATCAGCAAAATAA
GAGGGAAGAGTCTGAGGAGGAAGAGATCCATGGGATTCATAATTGAAATAGAGATTGGAG
ACCTCCTATTCAAGTTCATAAGCAATGGCACCACAGGTCAGATGCAGTTATCTGAACCTCC
AGGAANTTGCTGGTTCTCTTGACAAGCTGTNATTTTAGGAAA

Sequence 1445

Sequence 1446

Sequence 1447

Sequence 1448

Sequence 1449

Sequence 1450

CCGCGGTGGCGGCCGAGGTACAAATTGNCGTTTTTATTCCTCTTATTGGGATATCATTTT

TABLE 1
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AAAACTTTATTGGGTTTTTATTGTTGNTGNNTGATCCCTAACCTACAAAGAGCCTTCC
TATCCCCCTCGCTGTTGGAGCAAACCATTAACCTTACTTCCAGCAAGCAAAGTGCTTTG
ACTTCTTGCTTCAGTCATCAGCCAGCAAGAGGGAACAAAACCTGTTCTTTTGCAATTTGCC
GCTGAGATATGGCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGATCA
AATATAGAAAGTTGATATTCAACCTCACAGGGCTCTCAAAGTATAATCTTTCTATAGCC
AACTGCTAATGCAAATTAACATATTTCAATTTAACATGATTTCAAATCAGTTTTTCA
TACTACCCTTTGCTGGAAGAACTAAAAATATAGCAAATGCAGAACCAACAATTCGA
ATGGGGTAGAAACATTGTAAATATTTACTCTTTGCAAACCTGGNGGTATTTTATTTTGG
CTTCATTTCAATCATTGNAGTATATTCTTAT

Sequence 1451

CCCCGCGGTGGCGGCCGNGGNACAAATTGTCGNTNNTATTCTCTTATTGGGATATCATN
TTAAAACTTTATTGGGTTNTTATTGTTGNTGTGGGNTCCCTAACCTACAAAGAGCCTT
CCTATCCCCCTCGCTGNTGGAGCAAACCATTAACCTTACTTCCAGCAAGCAAAGTGCTT
TGACTNCTTGCTTCAGTCATCAGCCAGCAAGAGGGAACAAAACCTGGTCTTTNNCATTTTG
CCNCTGNGATATGNCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGAN
CAAATATNGAAAGTTGNTATTCAACCTCACANGGGCTCTCAAAGTATAATCTTTCTATAG
CCAAGTCTAATGCAAATTAACATATTTCAATNTAACATGATTTCAAATCAGATTTT
CATACTACCCTTTGCTGGAAGAACTAAAAATAT

Sequence 1452

CCCCGCGGTGGCGGCCGAGGTACAAATTGTCGTTTTTATTCTCTTATTGGGATATCATT
TTAAAACTTTATTGGGTTTTTATTGTTGNTGTNGGGNCCNTAACCTACAAAGAGCCTT
CCTATCCCCCTCGCTGTTGGAGCAAACCATTAACCTTACTTCCAGCAAGCAAAGTGCTT
TGACTTCTTGCTTCANTCATCAGCCAGCAAGAGGGAACAAAACCTGTTCTTTTGCAATTTG
CCGCTGAGATATGGCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGAT
CAAATATAGAAAGTTGATATTCAACCTCACANGGGCTCTCAAAGTATAATCTTTCTATAG
CCAAGTCTAATGCAAATTAACATATTTCAATTTAACATGATTTCAAATCAGTTTTT
CATACTACCCTTTGCTGGAAGAAA

Sequence 1453

GAANCCCCCTTTNGACGAANANNCGCGAATCGNGAGCTCCACCGNGGNGGCGGGCCCGAG
GGGGACNANGANTTTTCTTGNNCNTTTTTTTTNNAAAAACNGGNGACTATTTAATCCATC
TAAAAATACAAATCAGGNAANGGGGGGAACCATAGGAAAAATCCTCCACCTNTAACAGAG
CCGAAGNTACNGGGCTTTCTGCTTGCTCCAAANAAATCCCAAAGGGCTTGGATAGTTTGN
GGAANGGGGAATTATCTGTGTCTTCAAACCTAACTCCCAAGGATACCTCAAAGGACATTAA
AGGTNTACCACCACCATTTCTGGGGGAAGAAAAAGGGGGGTTTCTTGCCCTTGCTTGAAA
AGCCTTANAAATNGGGGGAAGCCTCCAAATNGCCNTTNGGGGGNGNAAAAAGGGGNNCCC
TNTNAATTTTTTNNAAAAAATAAATTTGGGTTCCAAAAAANAACCCCCCTTTNGAAAGG
GANCAANGGGGGGGGGGGCCCCCTNCCCCNAAGGCNAAGGGGGGGGGGCCCNNTTNGGGG
GGGCCNCTGGGGGGNGGNNCCCCAAAAACCCCCCTAAACAAAANNTNGGGGGGCTGGGC
CCNTAANGAGGAGGGCCCCNCCAGAGCCCAAAANTTNGGGGTTTNNACCCCANNNAAAT
TTTGGGGGGGTNTTTTTTTTACCCCNNTTNGNNCCCCNCCCCCTTGGGGGGGAAAA
AAAACCCCTTAAAAACCCCNNTTNTTNAAAACCCCCCGGGGGGGGG

Sequence 1454

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGTACTTTNTTTTTTTT
TTTTTTTTTTATACCAGATTTTAAGGAAAGACTGCTTGCTTCTGANAAAGAATTCTCGG
AGTTGATTCTCTGCTCCATTTGCTCCTTTCTCAACCTCTTTAGTCCTCGTTCTCTGCAGT
AAGAAGCTAGTGACAACTGGAATTTAGCTCCAGNGGGCTTTCTTCCGGGTGGNGCCTGG
ACAGGCTGCTCCTGCTGCTAAGGCTTCTGGAGCTGTTATTGAAGATGTCAGCTTCTGCCA
CTGNGGTCTGCTTTTTGGAGTCTGCATTGGTTTTGCCTCGATCTCTATCATTCTTCTCAT
TATTTTCATGAATGAA

Sequence 1455

CGAGGTACTGACCTCGTNTGTCCCTTCCCTNCAACCGNTCCCCACAGCTTTGCACCCCTT

TABLE 1
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TCCTCCCCATACANACACNNNCCATTTTATTNTTTGGGCCATTACCCCATACCCCTTATT
GCTGCCAAAACCACATTGGGGGCTTGGGGGGGGGCCAAGGGGCCTTGGGCATGGGACCAA
GGACCACCTCCCCCTACCCATATCCCTCCCGTGTTGTGGGGTTTNGGGGAAAAAACCT
TTTTGGTTTTTTTTGGGGGGGGTCTTTTTTTTCTCGGAAATTAANAAAAAAGGATT
NCTTACCTACAAGAGAAANAAAGAAAAAAGGGGTACCCTTGGCCCCGGGGGCCGGGGCC
CGGCTTTCTTAAGGAACCTAAGGTGGGGAATTCCCCCCCCGGGGGCCTTGCCAAGGGAAA
TTCCGNATTATTCNAAAGGCCTTTAATCCGGAATNACCCCGGTNCGNACCCTTCGGAGG
GGGGGGGGGGCCCCCGGGGTAACCCCAAGCTTTTTTGGTTTCCCC

Sequence 1456

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAGATAAGACCC
TGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCAGTTGGTGGACATCCATGTGACAG
AAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGA
ATTTACCATCACCAACCTACCATATTCCCGGGACAAAGCCAGCCAGGCACCACCAATT
ACCAGAGGAACAAAGGAATATTGAGGATGCGCTCAACCAACTCTCCGAAACAGCAGCA
TCAAGAGTTATTTTTCTGACTGTCAAGTTTCAACATTAGGTCTGTCCCCAACAGGCACC
ACACCGGGGTGGACTCCCTGTGTAACCTCTCGCCACTGGCTCGGAGAGTAGACAGAGTTG
CCATCTATGAGGAATTTCTGCGGATGACCCGGAATGGGTACCTGCCCGGGCCGGCCGCTT
CGGCTTTAGAACTAGTN

Sequence 1457

GGAGCTCCCCGCGGTGGCGGGCCCGGGGCAGGTACAAGTCCAAATTTTAAGGAAAATGA
GTCCCGCAATGAGTTTCCCTCATGCTTCGCCTGTGCGTGGACCGGNCAGCTTCTGGGTGTG
ACTGGAGCAGGGCTTGTCTCCTTCTTCAGAATCACTTTGCAGGGGTGGCAAAGCCGCTC
CCATCCACGTA CTCTGGACACAATAATTTGGCCTATTGCCATCAAATGCCATTTTC
CACTGCTGGAAGCAATGTCAAAAAAGGGCTGGCCCCAAAAAAGACCCAGAGCTGTCAATA
CAACACTGGAGACAGATGCAACTGAATAAACCCCTGTTTTACCCAATTGCACTATTTGGTC
CT

Sequence 1458

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCCGGGGCAGGTACTGGAACAGGGATAA
GTTCTTGGATAAGGNGCCAACATACCTATAAAAGCTGATTTTTGAGTAAATTATTGATTC
TAACATATGTAATGGATTGGTGTGATAATTTCTGATCTTTAACTATAAGTGACTTTTT
ATTCTCCACCAGAAAAGATAAATGACTGAGAATGTAAGTCTGCGCTCTGATTAACACAAT
GGAGAAACGGAAAACTATCTCTGTTAAAACTGATTCTGTCACTTCTTGATATCAAA
TAAGAGGAAGGAAAATAAATTTTTGTGTGTAGATAGAAAAACATACCTGAGGCCAGGTG
CAGTGGATCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGGCGGGCAGATCAGCTGAG
GTCAGGAGTTTCGAGACCAGCCTGGCCAACATGGNGAAATCACGTCTCTACTAAAAATACA
A

Sequence 1459

NGGGCGAATTGGAGCTCCACCCGCGGTGGCGGGCCCGGGGCAGGTACGCGGGGGCACTC
AGGGAGCTCAGATTTTGAGACAGTAGCTGGCCGATGCTCCAGCTGAATAAAGCCCTTCC
TTCTACAAAAAAGAAAAAGAAAAAGAAAAACAGGATATCTGAAATTAAGACTGCAGGAT
GGAGTAGTTTTCTGAAAAATGACAGGGTCCAAGGTGTGACNCACCGGGACCAAGTGGCTGA
ACTGGAATGAAGTTAAGAAGCCAGTAAGAAAAACATCNCGGATAATATGGTGGATCAGTTC
AACAGNAATGACATTATTTACCCATGGTCCCCAAAGGGAGGGAGATGACTGGAGNATTT
CAAATTCCTCAAGGCAAGCCCTCAATGCCAGCCCAGAGGATTTAANGAGGGGCCCTATTG
TTGTTCCCAGAAAGGAGGACTCTGNGGCCAAACCGCCAAGAATGGGATTTCAAGAAATTT
ACTTCAAAATTCCTGTGAGGATTTCTTTAACCCCTGGGTGGGGCTTATACCCAAAACCCCA
AAAAAATTTTAAGCCAGCCTTCNTACTTTTTGGCTTAATTTTTCTCCCTAAAGCCCCAA
CCCTTGGGCNTTTTTTT

Sequence 1460

ATTGGAGCTCCCCGCGGTGGCGGGCCCGGGGCAGGTACTCAGAAATCCTTCCCCGAATT
TACAGCACAGGCAGGATGACCTAAGAGGCAGTTTACTTCCCTGAGACCCACAGTTGGGCT

TABLE 1
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GTTCTGGAAACACATCTGTGAATCATAGCCAATTGCCACAGAGAAAACAGAACCAAGCCT
CCGGTGAGGCCACTCCACCCAGAGAAGTCTGCAGAATCCAAGGACTCGGATTGGATGT
TCAGAATTCAGCAACTGGAAAGTCCTTAAAAACAAACAGGCCAAACCAATCAATATTGC
TGTTTCTAGATGTCCCTTCTGTGGTTGAGCTAGTTTTACAGAGATAAATATATTAAGACA
AGGAGGTGGGGGTGTTATATGATCAATGATAGCCATTTTGAAAGAGAGGGAGGAGTACTT
TTTTTTTTTTTTTTTTTCCAAGCACGTGCCACTTTATTGAATGACACTGTAGACAGGT
GTGTGGGTATAAACTGCTGTATCTAGGGGCAGGACCAAGGGGGCAGGG

Sequence 1461

AGGTACGCGGGGCTCAAGAATAAGCTGAAATATGGCCAGACTATCAGGCCCATTTGTCTC
CCCTGCACCGAGGGAACAACCTCGAGCCTTTGAGGGCTTCTCCAANCTACCCACTTTGG
CCCAGTCANACCAAAAAAGGGGAAAGNAGGCCTGGCTTCCCCTTGNCAACAAGGGNATTA
ATTCCAAAAAGNCCTTCTGTGTTTTTGGNTGGTNCCTTGAAGGNAAGGGNAGGAAAAA
AAAAGNCCTTGNAACCTTCGGGGAAGGGGAGGGTTCCTTAACAATCAAAAGGAAATTG
GGGGGGGAATAAAAGGAAAAANGGGGCCAAGNCCTTGGTTTGAAGGAAGGNAGGTATG
GCTTCAAATTAATGGCCCCCAANGGCTTAATTGAACCAAAAAAGGGTNCAAAAGGGGAA
CAATTCTCAANAAGGGGTGGGGTTCACCCCCCCTTCGGGGTTTTCCCTTTTTGGTT
ACCCCTTGCCCCCGGNNCCGGGGCCNGCCTTCCTAAGAAANCNTAGGGTTGGGGNANT
NCCCCCCCNGGG

Sequence 1462

GCGGGCAGGTACATGGATGGGAGCAGCTTCACCAACCCCTGCAAAGTGACTCTGAAGAAG
ACGACAAGCCCTGCTCCAGTCACACCCGNAAGNCTGACTGNNTNCCACCGCNACAGNCT
GAAAGGCATTGAGGGNAAAACCTCAATTCNTCGGGGNACCTAAATTTTTTCCCCTTTAAA
AANATTTTTTAAGTAACCTTTGGCCAACCAAGGTAAAGGGGGAACTTTTCCAAAACNTNG
AACCCCTTTCCCTCCAAGNATTTGNAAGGAAACNTGTTNTTCCAGGTTAATTAATTAC
CNATTTCCAAAAGGTTCCAACCTTTNGGAANGGGGTTAAGGGGGAACCAANAAAAAATT
TTGGCTTAACCAAGGTTCCCTNAATTAATAATTTTTAAAANGGGGGTTTTTTTTTTTA
TATAAAAAGGGNGNTGGTNTNANNCCCTTTTNGGNGGTCCCCCTTTTTTTTTTTNAA
GAAAAANCNTAAGGGGNGGGGGAATTCACCCCCCCCCCGGGGNNCCNTTGGGCCAAA
NGGAAAAATTTTTCCNGNATTTAATTTCCAAA

Sequence 1463

AGGTACGCGGGGAGGCATTGAGGCAGCCAGCGCAGGGGCTTCTGCTGAGGGGGCAGGCGG
AGCTTGAGGAAACCCGAGATAAGTTTTTTCTCTTTGNAAAGANTCCCNCTTTAAAA
TAACCAAAACCTTACCTTTAAAAAAAATAATTANGTTCCAAAATTAANGGGNTTTTA
ACCTTNAAGGNAATTAATTTTTNGGCCTTTTAAANNCCGGGTTTTTAAAAGNGTTT
TTTTTTTTTAAAAACCCGTTTAAAAATTTTTTTTTTAAAAATTAAGGCCCTTTTAAA
AGNNAATTTTTTTTTTAAAGGNGANGGAAAAAAAATTTTTTTTTTGGNANAAGTGAAA
ANCTTTTTTNTTAAAAAATNTAAANNNTNTTTAGTCCCTNNTTTTTNTAANAGGNGGG
NAAATGGGNGGGGTNNNANANAAGGAATTTAAAAAANTGGGNTNTTTTTNTTAAAAAAA
AAACCAATTTTATCCCTTGNTNAGGGGTTTTTTGGGNAAGNNAATATGAAAAAANAAN
CCTTTTNTCT

Sequence 1464

TTTGAGAAGCCAGCGCTCACCCACCCGGGGTCTCTGTGCATTGACCTTTGGGTGCTGACT
TGGAGAAAAGCACAAACACGACCAAGTCCCATCCTGGGCTCCCGNNGGCCGNCTTTCTTT
CCTAATNCTTACCGCCATTTTGGTATTCCGGACCTGGCCAATTTTAGGTTTNGGGACCTT
AAAAGNAATTGGAATTGGAACCTTCCAAGTTTTTAAAAAAGGGGGAAGGGGAAGNAACC
NAAANATTNNCTTNGAACCTTGGTTCCTTAAAGNCCAAANGGAAATTGGGGCCCCC
AANAGNCCCTTGNNNGCCAAAAAGGNAAAAAAGNNCCNAACCCAACCTTTGGNN
CNAATTTAACCCNAATTTAAAGGGGGGAAATTACCAAGGAAAAGGGGGGNCAGGAAGG
CCTTTCTTGGGCCCTTGNCCGGGGGGAATTCCTTNGGCCAAAAACCAATTTTTTA
ACCCANTTTTTTTGGGTTTTTTTTTGGGCCCTTTGGCCCAANAAAACCTTAACCCC
CCCCGGGCGGGTTNACCCCTTTCGGGGGGGCCCNCGCCTTCTTAAGGNAAACCTT

TABLE 1

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AAAGGNNTTGGGGGGNAATTTCCCCCCCCCCCCCGG

Sequence 1465

AGGTACTTTATTTTTCTTTTTTTTTTTTTGTGGATGGGGACTTGTGAATTTTTCTAAA
GGTGCTATTTAACATGGGAGGAGAGCCGTGTGCCGNATCCAGCCCAAGCCCNCCCGNTT
CACTTTTTCNCACACNCTTTNTTTTTCAACCCTTGGCACCTTCTGGGGCNTTACTTTAA
AAGNGGNCCCCTTTNTTTGGNCATTACATTAGCAGCGGAAAACANCCCTTTANTTNCCTT
CCCCNTTNATTGGNGAANANAACCTCCCATTNTTTTTNTTCAAANAAGGAGCATTNGNC
AAANANCTNCCCAAATNTNNCCTTNACCACNGNGGNCNNTANNCACNNTNCTANCTT
NAGNGNNGGCCATTTGGGTTNCNCCCTTTGNCCNGGAANTTCTNCCCTTTTCCNTTNGN
TTTTNTCCCNCCNGGGNNGTTTTTTTCCAAGNGAAGNGANCCCANAAATCCTTTTTTNNNN
CNCNAANAAAAANGTTNAANCCNAAAAAAGNGCCCAAGAGTTTTTTTTTTTTTCCCC
CCCCC

Sequence 1466

AGGTACACTGAAACATAAATCCGCAAGTCACCACACATACAACACCCGGCAGGAAAAAAC
AAAAACAGCAAGTTTACATGATCCCTGTAAACAGGCCATGGNNCTNCAANNCTTCAGGAAT
GCCTTNCCNTCNCATTCTGGCCCAAAGNTGGTTGTTTNCNTGGGAATNACCAGGNAGGCC
ACCAATTCGGTGGGGCCTNTCCTGGGGGGNGGTTCAACCAACCTNCAAGNCTTTAAGGG
CTTGGTTGGGGGTTCCCCACCANGAGGCCACCTTNCAATTCTTGGGCTTGGGGGACCTAA
TTGNGGNTGGGGTTGGGNTTGGGACCTTCCTTAACCTTCCAAAAGTAAGNCAANAAGCNT
GTTTAACCCAAGCCAACAATTTNCAAAAAACCAAGGTTGGTAATTTGGNAAACCANTCCT
TTTTTNAAAAATNATTCAAAAAGTTNGAAGGAAAAANCCANAGGAAANGGGNCAAAC
CATTAAANTTAAATNGGTTTATCCAAGNAAAAAAG

Sequence 1467

CCGGGCAGGTACTTTTTTTTTTTTTTTTATAACTGAAGCTTTATCTGGAGTGGGGGAA
TGGGGGTGTGGTCAGTTGGGGCACCCAAAGACAAGCCATGCCNCCNCCNGGAAANGCC
GCNCAGAGGGTTCCCTTGGGCAATNTGGTATNTACTGGGGTATCCTTCTTNTGCGGTTNC
TTTCGGGNCAATTTTTCCGATNNCCACCTTTNNCCTTACAAAGGGNCCCCAANNNTTGN
CTTTCTCCANCNCCCCAAAAGGTTNNGTGCCCCTTTTNNNCCCCGNAANNNGGAATTGTT
NAAGNCCTTNGNAAGNGGTTATTGGGGAGGACCATTTTCTTTCTTTNCCCCCCCCCA
AGGAAAAAATAATTTCCNGTGTTNAAGNGGTAATGNNAAGTAACCTCCCCCAACCA
AATTGGAAAGGGGNTTAAAGAANTGGNTTTTTNACCTTTTTCTTACCNCCTTTCCNC
CAAANNCCCTTTTTTCAAAGGGGGGGGCCCTTTTTCTTTCTTTAANCCCAAACCTTT
TTNGGAAATTNGGGGGGGGGGCCCTTGGGAATTTGGAAAAANCCGGNTTNGGCCCGGN
CCTTTGGGTCTTTGGTTTTCCCCAAAAACCCCTTNGGGCCAAACCCCCCT

Sequence 1468

AGGTACGCGGGTGGTGAAAAAGAAGTAGAAATCGTGGCCACCTCCCTCTTGGGGTCGT
CGCCCTCGAGATGATTATCCGTAGGAGGGAGTTCCCTCCACCTCCNCCGCCACAATCTTCC
CAAAGAAAGGGGAGAAAGTCTTTCTTCTTCCGCGAGNCNCGNGTAGTCNAGNGGTTCCC
CCTTTTTCTTAGGNAGGCATTTAAGGGGNAAGTAAAGGAAGGNAGGAAGNAATTCGG
CCTTGGTTCNTTCGGGGGNAGTAAGNAAAAATTCACCANAGTCCCGGTCCCCGGAATTC
CCTTTCTNTTCTTAAGGGGGTTCCTTCCGGTTAAGGTTCCGNAATTCCTTAAGGGGTTNC
AAAATGGAAAAAGNAAAAATTAAGGAAAGNAACCAAGGTTTTTGGCCAAAGGAAGAAA
AGGTTGGGGTGGTTAACCCTTGGCCCCCGGGGGCNGGGCCCCGGCTTCTTAAGAA
AACCTTAGGGTNGGGAAATCCCCCCCCCGGGGGGCCTTGGC

Sequence 1469

CCGGGCAGGTACTTTTTTTTTTTTTTTTATAACTGAAGCTTTATCTGGAGTGGGGGAA
TGGGGGTGTGGTCAGTTGGGGCACCCAAAGNACAACCTCATGCCTCCTNCCNNGAAAGGNC
GGCCCAAGGGTCCCTGGGCCAATTTGGTTTTCTTGGGATTTCTTCTTTTCGGNTACATCG
GGNCAATTTTCCGNTACACCTNCNCTNCNAAGGGNCCCNAGGNTTGGCTTTCNCCNCCG
GCAANAGNTNGTNCCTTTTCAACCCGGAATGGAATGGTTAAGACCTTGNAAGNGGATTTT
GGGNGGACCTTTTNCATTANCTTACCCCCCAANGTAAAAAATTTCCGGTNNTAAGGG

TABLE 1

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GNAAGAAAAGGAACCCNCCCAACAATTGAAGGNGGTTAAGGTTGGGTATTTTCCTTTTCC
TTTCCCCCTTTCCCAAGGCCNTTTTTCNAAGGGGGGGCCTTTTTCCTTTTTCATTAAACC
AACCTTTTGGNAATTGGGGGGGGGNCCTTGGGAATTGGGAAAAAACCGGTTTNCCTCG
CCTTTNTCTTTGNGTTCNCCAAAAACCCCTTGGGCCAAACC

Sequence 1470

AGGTACGCGGGTGGTGAAAAAGAAGTAGAAATCGTGGCCACCTCCCTCTTGGGGTCGT
CGCCCTCGAGATGATTATCCGTAGGAGGGAGTNCCTCCACCTCCNCCNCCNCCNATTCTTC
CCAAAGAAAGNAGAAGAAAGNCCTTTCTTCTTCGGCAAGNCCNGNAGGCCAGGGGNTGC
NCCCTTTTTTCNTAAGGAAGTATTNAGGGGGAGTAAANGTAAGTAAGGAAGGAATCCGG
CCTTGGTTCNTTCCGNGGGTAGGAAGGAAAAAATTCACCAAGGCCCGNTCCCCGGA
ATNCCCTTTTCTTCTTTCNAGGGGTTNCNTNCGGGTTAGNTTCCGAATTCCTTAAGGGGT
TCAAAATGGAAGGGAAGGAAAAATTAGGGAAGTAACCAGGTTTTTGGCAAGGAAGGAA
AGGTTGGGGGTTGNTAACCCTGGCCCCCGNGGGCGGGGCCCGGCTTCTAAGAAACC
TAGGGTGGGAATCCCCCCCCGNGGGGCCCTTGCCAAGGGGAAANTTTTCCGNAATTAAT
TCCAAAAGG

Sequence 1471

AGGTACAAACGAGTCCTGGCCTTGTCTGTGGAGACGGATTACACCTTCCACTTGCTGAA
AAGGTCAAGGCCTTCTTGGCTGATCCATCTGCCTTTGTGGGCTGCNTGCCCCCTGGTGGG
CTNGCCTGNCCACCCAACCAGGCNTGGCTTCCCTGCCTTGGCCTTGGCCTTGGCAAGGC
TCCCCCAGGCCTTAAAGGGGTTTTGGNAAAGGNCNCCAAAGGGGAAAAAGGAAGGTTCCGG
GAAGGGGAANTTCCNGGGAACCGAAGGGNATTAATGGGGGGAATTTTTTGGGGTCTTNC
TTTTTGGACNTAAAAATTCNAACCCCAAAAAAAAAAAGGNCNAAANCCCCCAAAA
ANCCTTTTTTAAGNCCCAAGGTTTTTTTTTAATTTTTTGGCCAAAAAAAACCAAAAGG
GGGAAAAAANTTAAAAAAGGGGGGCCCTTTAAACCCTTTTTTCCAANTTANANTAT
AANAATAAATANNANAANNNNNNTNNGNGGGTTAAACCCCTTTGGGCCCCCCCGGG
GGNCCCGGGGGCCCCCGGNTTCTTAAAGGAAAAACCCTTAANGGGTNGGGGGGA
TTCCCCCCCCCCCCCGGGGGGGGCCCTTGGGCCAAAGGGGAAAAAA

Sequence 1472

AGGTACAGAGTCTTTTCTTCTCCACCCCTAGGGGGAAAAACTGCTTTGTGCTTTGGG
AAGTTGTCTCTGAAACCCGGGGACAGAGGACCGCAGGACAGANCTACCGNCGGGGAGNCC
CGNGGNAGGGAATGGGGGCATGCAAGTCATGNTGAGAAGNGGAGNGTGATCTTACAAGCA
NNGGAAGNACGTATGNGGTCCCGNGTAAGNAAGTCCANGTAAGNGNCCCCTTGAAGNAA
AGTCCCAAGTANCGACCAAGTNTTGNAGTAAGTAGGGTGNTGGNAAATAGGTTGNANC
CCATNTCCGGGGGTCTTGGGGGGNCCTTGGGTAAGNCCNCGNCCAACCAACTGCTTCT
CCTNCCCCAATGGTTTAAAAAATTAGGCCACCCCTTTTTTAAGGAAAAAAAATTTTTC
CAACCAAAAGGGTTCNCCCAATTCCAACCATANAAAAAANATAGATANACACAN
AAAGGGGAAAAGGTTACCCCTT

Sequence 1473

AGGTACTGGTGTGTCCGGAATCCTACCCACTGTGATGACAGTGCCTGATAGTTTCTTCTG
CCTTTCTATCCCAAAACGATTGGTCAGTTTACCCAAGGTTTGGCAAATGGCCAGCCTTNA
GNAATCTTCCCAAGGGGAANCAATNCTTCTTTCTTAGGTTAAGNTTTGGCCCCCTTAA
GNCCCAATTCCTTTNGGTTAAGGTTTGGNAATNTTGAACCTNTNTNTNTNTNTNTNT
NTNTNTTGTGGCCTTTTCCCAAGGAAAAAGGCCTTCTAATGNCCTTCAATTAATGGGG
AACCTTNGGCCAATAACCCCAAAATTTTTTTTTTTTNGGGTTTTNCAATTTCTTGGGT
TTTGGGGGTTNCAATGGAATGGGGTTTAAAGGCCAAGAAAGGCCCTTGGANCCCCCTCCCC
NTGGGTTTTAACCAAAATTAAGGAAAAATTGGAATTCGGGGGTTTTTCCCTTGGGGG
CCTTAACCAAGGAACCTTTTGAAGGGTCTTNGGNTTTTTTTTTTTTTTGGGTTTTTTT
TTTTAAAAAANCCCTNNTNCCNCCCAATNGGGTTGGGGGGCCNAAAA

Sequence 1474

CGCGGTGGCGGCCCGCCCGGGCAGGTACTTTTCTTTTTTTTTTTTTTNGGGATGGGGAC
TTGTGAATTTTTCTAAAGGNGCTATTTAACATGGGAGGAGAGCCGTGTTGCCGGCTCCAG

TABLE 1
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CCCAGCCCCGCGTTCACNTTCCACCNCCTTTNTTCTCACCTTGCCTTCTTGGGCT
TTTCTNCAAGGGCCCCCTNNTGGCCTTCTTCCCCGNACCCCTTTGGTTCTTCNCTTCTGG
AAANAACCCNCTTCNCTNCCAACCAACCTNNGCAGNCTCCCATNNCTTCCCCGGGCT
TCCCCNCTCNCCTTAAGGTTCTTGGTTCCCCCTTGGCCGGTTCNCCTTCTTGGTTCCCCCG
GGGTTTTTCAAGNAGNAACAAAANCNTTNCCTCAAAAANGCCAACAAAAAAGGCCAAGGT
TTTTTTTCCCCCCCCCTTAAAGNNGGNNNTGGGGGGGAAGGGGAAAAAGNCCAAAAAAA
GGAACCTTCTTGGTACCCCTTTTNGGGGCCCGGGCTTCTTAAAGAAAACCTAAGGGTG
GGGGAATNCCCCCCCCCG

Sequence 1475

AGGTACTTCAATCCTGAATTAATCTTTAAACACTTTCAAATATGGAGATTAATCACCAAC
TTCTTATTTTTTGGCCAGTTGGATTCAATTTTTTATTTAACCATGGANCTCTTTCNTAT
TATTCGGTTACCTNGTNCGGAAATGGCCTAGGAAAGNAAAGGGCCTCTTTTNCNGGAG
GGGTTNCGGGGAACCAAGNCNAGGAACCTTTTGGTNAATTTTTTAATTGGTTTCCCTT
TTTTTGGNTGGGGAATTTCTTTAAATNGAACCCCGAGTTCCGGGAACAAGGGAATTG
NAGGCCCAAAGGTTCAAAAAAGGGGAAAACCNTTTTTNTNAAACCCCCCAAGGGTATT
GGCAAGTTTGGGACCACCATTAATTAATTTTTTTTTCTTTGGGAAAAGGGAATGTT
TAATTTTTTCCCCCAAATTCAAAANCCCTGGGGTGGGGAATTAAGGGAAAATTT
TCNTGGAAAAAACCAACCAATTCTAATTTTTTTGGAAAAAGGCCTTAATTTTTTTTT
TGGAATAACCAACCC

Sequence 1476

AGGTACAAAATTTTATTAAAGGTCTTTAGAGAGCAACATCCAGACTCCAGAATACAGCTG
NGNAGGAGACCCTGTTATGCTGTGGGACTGGGCTGGGGCATTGGAAGAGCNCCTCNCNTC
TGGGCCCTTCCCAACNCCCTTTANTTGTCTTGNAAAGAAATGGGNGGGGNTTGTNTGGG
NGNCNATGATNATTANCTTTCAATTTCTTTTAGGGGGGATTTNACCAACCAAAAATTG
NCCTTTCNAAACCGTTGNGGNNTTCCATGTGNCCAAGGGNGGNGGCCTTTCTTTTTTA
NGGGGNGCCCCAAANTTCNTTTNAAACCCCAANTANTTTGNTTTTCCGGNNAANGT
CCCGGTGTTTNTACCCGGAATTTCTCCGNGGGGNGANCAANGNGNNTTNCCTTGG
TTGNGTATTNCCCCAACTAATTTAAAAAATAAAC

Sequence 1477

CGGCCGCCCGGCGCAGGTACTTTTTTTTTTTTTTTTTTTTGGATGAAATGCCAGGGTGA
AAGGGATAGCCAAATAGGCTAAAGCACAAAGTGCCACTCTAGGTTAATTTCCGCAGGACNN
GCCCCAAATAAAAGGGTCCACCNGACCANNTTACCCAATNCAACAACCATTTCCCGGNT
TTCGGGG

Sequence 1478

AGGTACCTTAACTTGAGTTACAGGGCTGGTCCCTCTCTTTTCATTTTTATCCCAGTAGG
TGAGACCGTCCCTGCTGTGTTGGTGGCTGTGGAGTTGATGGCATCTTGCTCCAGGTGA
CACCTGCATGCTGGCCAGCTGAGCGGCATAGAGCTGCTGCAAAACAGGGAAGACAAACAT
TGATCTCTTTAAATGCAGCTGAAATTGAGTTTCAAAAGAAAAAACTTACCATATTGTTAG
ATTTCTCAGACAGCCTTGTAATTTCTTTTCACTATTTTAAAAAAGGGAGCTAAGAGAA
GGCAAATAATAAAACAGAAAGAAAAAGGACAGGTATGGGAGCCATAGTTCTGTTTCTGGT
CCTTCTAGCAACAACCTTATGATCCTGGACAAAGGATTTGATCTCTTAGAATTCAGTT
TTTTTTTTTA

Sequence 1479

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAACACCTGCTAAAGACATAGC
TTAATAAATATTTGTTGAATGTTGTTGAATGAAGAGCATTTTCTGCTCATAAATTTCTC
ATTACTTAACGAATGTAGAATAAATTCCTTACTCTGGCAGACTGGAATATGTAGTTACAG
TTTATTCTAGAATTTTTGCATTCCCCCTTCTTCTGTTCACTTGGAGAAGTTCTTTCCAT
CCTAAGTGACCCAGGTGAGTCCAGTGTCTGCTGATTTCACTGCAGGGCAGGCATGTGAT
CCAGGCTGGCCACAGTGGTCAAGTGTGGACAACCTGACCCCTGTTTCATCTGTGGAGTCTAAC
AAAAGTAGTGCCCCCTTATCCTCGGTGGTTATGTTCCAAGATGCCCAAGTGGATGCCTGA
AACCGTGGATAGTACCTGCCCGGGCGGNCNGNTCTAAACTAAGTG

TABLE 1
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Sequence 1480

CCGCGGTGGCGGCCGAGGTACTTAGCATTGATCAAAGAAATTTCAAATTACCGATCAATT
GGGTGGGGAGAGGAATTTTCATTGTCCAAGCACCCCTCAGGGAACAGAAGTCAAAGCAATA
ACATATTCAGCAATGCAGGTCTATAATGAAGAGAACCCGGAAGTTTTGTGATCATTGAC
ATTTAAGACACCAAAAAATAAAAGACTCCTACGAAGAACTGTTTTGTTTTCTCTTCCT
TTTGAGAAGACACTATGAATTAATTTCTACAGCTTTTTTTTGATATATGGAAATTTGTAG
AACAGAAATATTTTAGTTAAAGTGTGACTTTTCAGAAAGGAAAAATCAGGGCACAGCCTTG
GTCTGTGTTCCCAAATATTCACACTTTAAAGAATTCTTAAC

Sequence 1481

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGATTGTCCTTTATGCATTAAATTCAT
GCTTTTACATACTTGTTTCTTTTCATTCGTCCTTCCAAATCATTATTTTAGGAATA
TAGAGAAAAGGGTTGGCCAGGTGCAGTGACTCACACCTGCAATCCCAGCACTTTGGGAGG
TCGAGGTGGGTGGATCACTTGAGGCTAGGATTTTGAGACCAGCCTGACCAACATGGAGAA
ACCCCATCTCTACTGAAAATACAAAATTACCCGGGTGTGGTGGCGCATGCCTGTAACTC
AGCTACTCGGGAGGCTGAGGCAAAAGAATTGCTTGAATCTGGGAGGCGGAGGTTGTGGTG
AGCCAAGATCGTGCCATTGCACTCCAGCCTGGGCAACAAGAGCGAAACTCCGTCTCAAAA
AAATTAATAATAAGGCTTATGTGCAGTTATTCTCAATGAGCTAAAAAGCTTCCTGAGG
CTAGAAATCTTGTCATTTTTGGCTGGGA

Sequence 1482

CCGCGGTGGCGGCCGCCGGGCAGGTACTATCTATTTGGCCTTGGAAGTTACTCTCTAAG
TCAGGGCTTCTTTTCTTNAACTTTGGTGTGAGACTCCGCTGGAGAGCCGGTTAGAAAAAC
ACAAGTCTCGGGCCGCCAGCCCGCAGAGCCCTCATTCTCTAGTTCTGGGTTGGGGCCAG
GAGTCTGCTTTTCTAGCAAGCGCCAGATGTCACTGATGCTTACAGCTCTCANACCACAG
TTGGAGCAGNGATTTTTAAAGTCTTTTCATTTGTAAAGAGTNGTTCTCCATGCTCCAAA
TGACTGNGACGACTGAGAAAATGCATGTATGTAAAGTCTGCANCTGGTGACATTGTACAC
ACTNAGCAAAATGGCCTTNGGTGTTACTGTNANTTTATTTTACTAATTATTTNTNNCACC
NACAAATTNGGANCTGCTNCAATCGGTNGGAATTTGGAAATTGGGC

Sequence 1483

GCTGCCATCAGCTCCCTAGGAGCTCTCCCTCCAGGAAGGGAATGTGTCCACCGTCAGACA
CTCAGACCCAGCATGTGGGGACAGAGGCTGATGGCCTGTCTGGCCATTCTCTCAGTTCC
TCTCCTCACTAGCTTGTGTCCTTGTGCAAGTCACTTACCCTCTCTGAGGTTCAAGTTCCCT
CCTCTTTGAAGTGGGTTTAATAATAAGTACCTGCCG

Sequence 1484

CCGCGGTGGCGGCCGCCGGGCAGGTACTGCCCTTTCGTTAGAAGGCAGTGACTCCTTTC
TGTGAAGCCGATTTAGTGAAGTGTCTGTGCAGAAAAGAGTCCAGGGCTGTCAGTTAATT
TCTTCGGGCCACTGGAGTTAGGGTTTGAACTCTGCAGCTGCCTATTGCACTTGTGAAA
GGTTTGTATGTTCACTGCTGGCTGGCTCAGAGTTGGGAGTGAATCCTCCAAGGGATA
AGCTTGGAGAACCTTTCTGAACAGTCAATCTGTAAAGGTGTCTGCAATCCCAAGGCCAATG
GACTAGATTCTGAAGGCTCTCGGTGGACCCACTGTTCTCTCTGTTTATTAAGCTTTTTG
AAGGAGAGAGATGAGGGCAGGACATGTGACAACGGTGCTTTTCCTTATGCTTATATCGCT
CTCCAACAGCATCCTT

Sequence 1485

AGGTACATGCAAGTTGCATGATTATAATGACGTGATCCTGGGATTTAAGTTGATTATGAC
AGGAACAGAAGGAACTTGGAGATTAGGGACAATGAAAAGGTGGTAGTGAAAGGAGTGTTG
GAGTTAAGTTACTAGATGTCTGGAAGACAGACTGTGGTGGTCAGATAATGAGATAGATTA
TGGAGGGGTTACAGTTTTTGGTAATAACGAGAGAGATCTAAGGTATGACTGAGAGTGAAT
GGATGAGAATAGCAGAGAACAAGGTCAGTGGAAGAACTACTCTTCAAAGAACCTATAGTCA
GGGTGTTGAAAGATTAAAAATTGCTAAGAATTAATCAGGAAGTAGTGCTGCGGGAAATG
AAATGAGCAGTGAACCTAACTTACTGAGAAATGAGAGGGGATGACCCAAGGGTTGTAGA
TTTTGTAGATGATAGCA

Sequence 1486

TABLE 1
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AGGTACATGACATCCGACGAAATGAGACGCCACCTAATTGATTTCCGGGAGTCCGCACCA
GGGGCCCTCAGGGAAGAGACCCCGCAAAGATCCTGGGAGACCAAGGTGGGGACCCTGGTG
AGAAGAGAGAGTTTCAGGGGAGTCTCTCTTCATTGCCCTTCTGCTAACCCAAGCATTAAATT
TGCTAAGTATTTACCAGGGGAGTGGGAAAAAGAGTTGAGCGGGATTCTCTTAGGCTATGA
GAGAGTCAGGCAGCCCCCAAGATAAAATAATGAACTAGAAAATCTGGAACCTTACTTCTC
TGGGAATNTTACCTATCTGGCACCGTGGGAAGAAAGAAAAAAGGCTACTGAGTACCTGCC
CG

Sequence 1487

GCGGTGGCGGCCGAGGTAAGTACTGACCTCTGCCAGTCAGCTGCGTAACTCCAGGCCCTAGGGT
GCCCCGTCTGTCCAGCCAGGGATTGCATGGATATGCTGTGATCTCCCTTTTGGTTCTGAT
TGAGTTGGACCTTGTGGGAGGAGAAACATAGATGTTGATACATGAACACATATGTTGGAG
AGAGAAAGTTTTATCTTGGCATAGGACTTTTAAACACAAGGTAATTTTTAATCAGTTTT
GGGACCAAAAAAAGTCAATATGGGAAAAATCCAAATTTCTGCCAAAATGTCTAAAGAGGT
TTATTCTGAACCAAGTATAAGTGAAGTGTGGTCTAGGTTACACAATTTCAAGAGATCCTGAT
AAAGCGTGCATGAGAGAGTTGGGCTACAGCTTGGTTTTACACATTTTCAAGGAGACAGGAA
TTGTANGGTAAAATTATGGCACAGGACTTTTAAATGAAGCTGTGAAAGTTTACAGTCCA
TAGAGAATAAAAAATCTAGAAGTTT

Sequence 1488

CCGCGGTGGCGGCCGAGGTAAGTACTGACACGACATATGGTAAATGAATAAGACAAAGGCTCT
GATGGCTTCTCACAGCCCTGTGGATCAAAGTCAAGTCTTTTCTAGAACCCCAAGGCCCT
GTCAGTCTCACTAGCCTCTCTCCAGACACACCAGCCTTTTTCTACCTTTCCAACATCCCA
AGTTCCTTTTCTCTTACAGGACTACATACACTCTCTCTTCTGCCAGAAACCATGTTCTAC
CAGCTAATTTCCACTCAACTTTTAAAGTCTCANCTGAAATGTTACTTCCAAAGAGAGGCCT
CCACTGAACCCCAAGCCTGGGGTTTACAGCACCTGTCTCCATAACTACATAATAATCTCT
CTGATGTTTAGGCTGGGCATGGTGGCTCACGCCTGTAATGCCAGCACTTTGGGAGGCCAA
GGCG

Sequence 1489

GGGCGAATTGGAGCTCCCCGNGGTGGCGGCCGGCAGGTACCCAGAGTTGCGAGGAGTTT
TTAACTGATTTAGCCAGGTGGCAANCATNAGTGAAATGGATGAAGAAAGGCCCTTAGAA
TGGCAAGATTACATTTACAAAGAGGTCCGAGTGACAGCCAGTGAGAAGAATGAGTATAAA
GGATGGGTTTTAACTACAGACCCAGTCTCTGCCAATATTGTCCTTGTGAAGTTCCTTGAA
GATGGCAGCATGTCTGTGACCGGAATTATGGGACATGCTGTGCAGACTGTTGAACTATG
A

Sequence 1490

GATNAGCTCGATATNGAATNNCNCNANNNGGGGANNNCANNNGNACAAGAGCGGANNCC
NNCGCAGAGGAGCTNCAANTTTACACACTGTTTAAATGAGGGAATANGCNGCAGCGCTTG
GATGTAAGTGAAGAAGACAGTNNAGCNCNCAAGGAGGAGGACAACCACGACCTATGAGGACA
CCATGCCAGAGAGGCCTGGACCCACGCTAGGCTCAGTGCCTGTTATACTCTTGGGACCC
AGCGCTTTCCTTCTCCATCACGTGGCATACTTGGCATTATTTGTTGNTTAAAATATTGCC
CTTAGTTTTNACCTTTCNTAAGGAGACACAAGGNNGACCTTTGNGACATTAACAGTTGCC
CCAAGTNGGGGNNANANAAANAATTTTTGGGGGNGNAAAAANCCTTTTGGCTTTTTNAAA
AAATTTTTTTTTNAAATTT

Sequence 1491

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGGTGACCCTTGCTGGT
GCTTTCATGTTTTGTGCCGAGGCAATTAGACTTTGTGCTGAATNTGTTGTGCTGCCACC
TCAGGGAAGGGGTGGAATGTGCAGCGTGGTTTTCCATTTGACATTGTTTTCCCTGAGAGAT
GGGAGGGCTGAACGTTACCTCTTGACAAGTCTTAGTGGACAGAGGGGGCCCGATACCCAA
GCGCCTTAGTTCTTAGGGCTGGGTATTAGTTCATTTTACACTGCTGATAAAGACATACT
CGATACTGGGAAGAAAAAGAGTTTAAATTGGACTCCACATGGCT

Sequence 1492

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTACCCTTTACTTTTTCCC

TABLE 1
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CAAGACCATCTCAGGGTGGAGCATTCTGTCTAAGAGAAGAAAGATAAGGAGGCTCCCACC
CACCTCTCCCAAGAGCAGACATTAAACATCTTTGTGCTTTGAAGAGAGTGAATTTTGGAT
AGTCTTGTGATTCTCAGACTAACTTCCAGAATTATACTTTAACCCCTTCCAGATATGGTC
CGCCTTTGGCATTGTGTGTACCTGTGATGGGGCGTGTGGTTTCCGGTTGTCTCACCTTTA
ATTGTCAACCTCCAGTGTTGACTCTAGAAATATGAGGAAAGCTTTTCAGTTTTTAAAT
GCCATTTAAATTTAGTCTATTAATAAACAAACCTAGAGGTCTTGGTGCAGTTGATTTTCA
GTTTATTAATTTAAGTGGTCCCAAAAGTATTACATCTTTTATATTCTGGAAGAAAAGAAC
TGTGAACAAATTAGA

Sequence 1493

CTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCANGGTACTGTGGAGGT
CCCAGGAGTGCTGGTGTGGGCACAAAGTTCCGATGGGTGAAACCATTGACATAGAGACT
GCCTCTGTCCAGGAGGNANGGGCCAGCTCGATGATGCCATGGGTGAGTTTGTCTCAGCTC
CCAGTATAGCTGCTCTCTGTCCAGTCCAGGGTTTAGAGGGTCAAGGCGGTGAGTGCAGAT
GGTGTCCACGCCGGTGGCTGNCCACGTTTTTCAGGCCTGAGCAAGGTGAGTNTGCAGCC
AGAGTACCTT

Sequence 1494

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAATTTGAATTTGTAATGA
GTCTGATGGTATATTTCAATTTTTGCTTTGAGGGACTGGCTGCTACATTGCAGAATATC
TTATATCCCTGACTGCTTTCCACTAAATGTCAGTGGTGACCCCAATCCAATTATTATGAC
AACTGAACATGCTTATGCATCCCTCATGCCTTTATTTTTATTTTGGGAAATCTTTCAGC
TTCAGTTTTTGTCTGATTTTATGTGATTCTTTGTTCTGCAATTCAAATTTCTGGGAGCCA
AACAGTCTCCTTGGTTCAGATTACTGTTTTTGAAGTCTCTCGCTTCAGATTCTGT
CATAAGATTATGGCTTAACCTATGGTTGTCTTTGATTTGGTGCCATATGAAATAAAACA
TTATTT

Sequence 1495

GAGCTCCCCGCGGTGGCGGCCGCCCGGGCAAGGTACGCGGGGAGTTTCACGCGCGTATGC
TTTGCCCGCCATGGCCGAGTCAAGNGCCTTTGGAGTTCCATGCCAAGCGGTCTTGGCG
CCCCGAGGAGGCAGTAGAAGATCCGGACGAGGAGGATGAGGATAATACTAGTGAAGCCGA
GAATGGGTTCTCCCTGGAGGAAAGTGTTACGGCTCGGAGGCACCAAGCAAGGATACCTTA
TGCTGGCTACTTTGGATGAGAATGAGGGAAGTGATAGATGGAGGGCAAAAAAAGGAGCAA
TCCGATTGACCTTTNACCAAGGGGGGANTTTTGAAGCTTTTTTTTTTAAAAATTTTTNT
TTTNGGNGAAATTTTTNAAAACTTTTTTTNTTTNAAANNANATTACCCCCCTTTTAA
AAAAAAAATTTNCCCCCAAAAAAANGGGGNAAAAANANCCCCCAAAAAAANAAN
ATTAATAAACCCCCCAANGNTTCAAGGGGCCCTTTTTTTTTTTTNGGGGNAAAAA
AAAAAATTNGGCCCCCNCCNCTTTTTTTGGGAGGAGAGGGGGGNCCCCCNCCCCCTTTA
AAAAAAAAGGGCCCCCCCCGGGGGGGGGGGNANTTTTANAAANTTTTTTTTCCCCC
CCCC

Sequence 1496

CGGGCAGGACCATGGGAAATAAGAGCNGGCTNNNGGCATTCTGNGTANGGAGCCTGAGCC
AAACTCTAAAGCTGTCTTTATAAAGGGAGGTCATGTGATGGCCAGAAATTGCCTTTGCTT
CATGGTGCATTTGGTGGGGAGTCAGGTGTGGGGTGTGGGTTTACATCATCCCATTTTC
TTTTNNGNNTTCAGACCTGCAATGCTTCTTTTGAACCCGAGACCGTCTGCGCTCCCACC
TGGCCTGTGATGAAGACAAGGTGCCCTGCCAGGTGTGTGGGAAGTACCT

Sequence 1497

AGGTACTTTTTNGAAGTAAGTGGACATGNNGGAGGNNAGGGGAANGGAAGTATTGNTATGG
ACTGAACTGTGCCCCAAAATTCATATGTNGAAGCCNTGAGCTCTGACATGATTGNATNT
GAAGTCCTAAAGCCAGGAATGAGGAAGGCTGTGAATGTNCATTGTTCCATGCAAGAATGA
CTCTGGNGNGGGCTATTTAGAGATCATGAGGGATACTGCCCCAGTTTCCACAGGCCAGAT
GGNCTCCAACAAAAGCCACGGGGAGTCACCCCTGCCTGGCAGATCTATCGGGTCAGGAC
CACCGCCCAGGGGGTCTTGGAGAGGACAGTATAGGACCAAAGAGGAT

Sequence 1498

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CACCGNGGTGGCGCCCGAGGTACTTGGCCAAGCGCTCAGATCGGCAAGGGGCACCAAGTC
TTGATCTGCCAGTGCACAGNCCCACAACCAGGTCAGCGATGAAGGTATCTTCAGTCTCC
CCCGAACGATGAGACACCATGACGCCCCAACCAATTGGCCTGGGCCAGCTTGACGCGCTGA
AGAGACTCGGTCACCGGAGCCATTCTGGNTTGACTTTTTAGCAAGAAGGNANTTNAAGGA
NTTTTTTTTANCGNCTTNGGNAATCCTTTGGGGGTGGGGCNCNTGGGNGAAAACTCC
CCCCANCCNTNGNGATTCTTNCNNGNGGGNNGAAAAATTTTTGGNNAANTNNCCC
ATAANNTTTTNGTGAANAANGGANTTTTTNANAAAANCCCCCTGGGGTNTNTNTTTN
NNNAAAAANATTTTTNTCTTCNCNGGGGGGNCNNTTTATAAAAAAANGANNANACC
CCCCNCCGTGGNGGAGAAAAATNTTTANATTATTTTTTCNTCCCCCCCCCGGCCT
TGGGGGGGGGGCCCCCANCCTTTTTTTTTTTTTT

Sequence 1499

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACAGTTAA
TTTGTGTCATCCCATCAGCAATGAAGGTCCCTATCCAGGGTCCTGCTTGGAGCAGCATT
CATGTTCTTTTGCTGTTTTGTGCTTGGCGATTTGGATTTATTTTTACAAAAATTTT
ATTTAAAAAACTCGTCACCTTTGGAAATGCCATTGCCGACTGAATTTTTGTATGA
AGTCCCTCCTGATTTGTGTGTGTGTGTCTGTGTTAAGCAAGCGTTCGGTTGGTATAGN
TTTTTTTGTTTTTTAATTTAAATTGAAGGTAGCTGCCTCCTGAAAGCCAGCATTAAAGC
CAGAACACCCAGNTTCAAGCAAAGACCCACCTCTCTGCAGAGGCAAAGTCTACTTTCTG
GTACCT

Sequence 1500

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTAGTAGAGACGGGGTT
TCACCATGTTTGCCAGGCTGGTCTCGAACCCTGGCCTCAAGTGATCCACCGCCGCAGA
CTCCCAGAGTGCTGGGATTTAGGTGTGAGCCACTATGCCCGGCCTAATACGTGGATTT
TAAAGCTTCAGGTTCTGGTTCAGAAAGTTTCTGGGTCTCATTAAAAAATGAGGCACTCA
GAATTGGTCTAATAAAAAATAACGACCATTTCTTTCTACTTCAGCTNTTTCACAACTTTT
TTAATGAAATGACAAGNGAGGNCCTTCAGTAGGGGCATTTTCAGGGGANAAAAATAGCG
GGNAGACCTGAAACCTGGGNTAGGNAGTTTTNTTTTTATTTTTTGAACAAGAAGANNAATT
TTTTCANAGACCCTAAAAAATTNTTTTCCCAAAAACAAAAGNGNTTNTTTTTNTTTNG
GGNGGGACCCCTTCTTTTGGGNNTTTTNCCTTCCCCCT

Sequence 1501

CACTACTATAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGCGCCCGGGCAGGTACGCGG
GGGCCACTGACCACAGCTCTTTCTTCAGGGACAGACATGGCTCAGCGGATGACAACACAG
CTGCTGCTCCTTCTAGTGTGGGTGGCTGTAGTAGGGGAGGCTCAGACAAGGATTGCATGG
GCCAGGACTGAGCTTNTNAATGTNTGCATGACCCCAAGCCCCACANGGAAAACCCCGCC
CCCGNGGACAATTTGTTTTNACCANGTTTCCCCCNTTGGNNNNAAAAAATTCCTTTTTTT
TTTNCNNCCCCCCCCNCGGNGNNCCNAAGGGGNNTTTTCCCCNNTTTTTNTANTNNNC
CCCCCCCCCCCCGGGGGNGGGGNGGNCNCCCNCTTTTTNNNAANNANTTTTTTTTTNT
TNNAAAAANCCNCCNNTTTTTTANAANGGGGNTCCCCNNAATNTNGGGGCCNTTATCC
CCNGGGGGNTAAAAANAANTNTTNNCCAAAAGGGGGGNNCCCCCTCCCCCTTTTTNAAAA
NAGGGGGCCCCCCCCGNGGGGGGNGNGAANTNATAAAANTTTTTTTNCNCCCCC

Sequence 1502

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACATTCCAGCG
CAGTCTGGGCCCAAGCAGTTTCACCTTACCTAACTTACCTAACTCTTAATATAGCCT
AAACTCACTGAAAAATAAGCTAACTTCATTTACCTTTNGTAGCATAACGTAGACTCAG
AGTNTATACTGAAATATAATGGGAGGCTGTTATNAAAAAAACCNNCCCTCNAAAAAAA
AAAATNTNNCNCNCTNAAAAAAAAAAAAAAAAAAAAAAAAANNNGGGGGGGGGGNNNG
GGTTTTTTTNTATNNTAAAAAATAATNNGGGGGGGGGGGGGGGGGGGGGGGGGTTTTTTN
TNTNTNTTCCCCTNNANTCCGGGGGGGGGGGGGGGGGGGGGGGGTNGTNGGTTTCTTNTATT
NTCTNTNCTANNNCACNCTCCNANACCCGNNNNGANNNNNAANATNNNTTNAATTAT
NNNNATTTNNNAAGNGGGGGGGGGGGGGGGGGGGGGGGGGTNTCTTCNNTTNNANTAT
AANTANNATAGTNTCTNNNGNANNNTTNTNTNNNNANATNTNGGNNTNCNCCNCTN

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CNTCTTNTTTATAAANAANAAAAA

Sequence 1503

CCCTCGCGGTGGCGGGCGAGGTGCATCACCCTGCTGAGGGACATCCAGGACAAGGTCACC
ACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTG
ACGATGGACTCCGTGTTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCCAGC
CTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCC
ACCTACCAGTTGGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACA
AGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCC
CAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAATATTGAGGAT
GCGCTCAACCAACTCTTCGAAACAGC

Sequence 1504

CCGGGCAGGTACTCTTGACAAAGCCTCCCCAACAAGGTGAAATCACTCTCGGCTCACCAC
TGGTGGCAGAAATACTCTGGGCCTGTCTGTTCTGAATGGTCAGTTTCACTGTAATCCTCA
GGCCCTTCCAGTCACCCGTTGCCTTGGCAATGTCATCACCAACTTTTTTTGGAGACAGAC
CCAGGGGGCCCGATCTTGGGGGCCAGGGCAGAAAGTTGGCACCGACTTTNCCTTCCGGGNN
CCCCTAAGGTTAAANACTTTTTNTTTTTTTGGGGGNNNAAAAANTTTTCGGGCNNTTGGGGG
GGGGCCCTTTNTTTTTTAAANNAACCCCCNNTTTTTNGGGAAAAACCCNAAAGAAAAGTN
CCCCCTTGGGCCCCCCCCCCNCCCAAAGGCCGNNAACCCCGGTTTTTTNGNGNTT
TTTTAAAAAAAAGGAAANCCCCCGCNCNCGGAAAAANTTTNTNANAANTTTTTTCCCC
CCCCCCCCNCGGGGGGGGGGCCCGGCCNNTTTTTTTTTTTTTTTTTT

Sequence 1505

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACATGGTGGTAA
ATGCTTAACTCCACCTATATAAAAATCAAAAACAGGCAAAATGAATCATCAGACTACAGC
TTACCTTTAGGGGGTGTGAGTAGTGACTAACAGGGGTCAAGATGAAGGTTAAGGATGTC
GCCAGGCGCAGTGGCTCAGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCAGGCGGAT
CACTGAGGTGAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCCTGTCTCTACTAA
AAATACAAAAAATTAGCCGGGCGTGGNGGTAGGCGTCTGTNGTCCCAGCTACTCGGGAGG
CTGAGGCAGGAGAATGACGTGAACCCAGNAGGTGGAACCTGCAGTGAGCCGA

Sequence 1506

CCGCGGTGGCGGCCGCCCGGGCAGGTACCATTTCTGCATTTATTTTAGCCCATGGAATAA
CTGTGCTGAGAAACCACAGAGTCAATCAGATTCAAAATGTTAAATCCTTCCTGCTTGA
GTTTTCCGTCTTCACATCAAAGCATTTTCATGCCCGTCAGCAACTTTTAATGCATTTGCT
CCTCGTTTGACAATTTCCATTTAAGACTTTCTTGGCTGACTTCTCTGATGAGGTTTC
CTGCTTGCCAGGAGAGCACGCTAATGCAGAAATTACAAAGGGGGCTTCACGTCCCTTTTC
CGGAGGACCTGATATTTAGATAATTTCCAGCTTCAGTTTTGGAGAAACGACTGTTCTTT
GCACCAGGGGAAAATAAACTGATTTTCAGTGTAAGCAACCTTTCTGCAAGTAGAATGGGG
ACTGTTGGGAATGGAGATGAAGACTTCACTTCATGTTATTCATTTCTTAC

Sequence 1507

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTGG
GTTAGGTTAACAGAAACAATGGGGTTATTTCCGGTAGTGGCAACAGCACGAACTAGTTTT
CTTGTGGAATAATGGCCCGAGAGTTCCTGCGATTTGTGGATTATTTCCCTTAGATGCAAT
CGACCATTTGTTCCAATAAGAATTAATGCTACCACGGGGCTTACAAAGAACCCTCAAG
TCTTCCAAATCTGCCCATGACATCAACCTNTGCTGCGTAATCGGACCTGCACCCAACCCA
GGTTT

Sequence 1508

CCGCGGTGGCGGCCGAGGTACGCGGGGAGAACAGCTCAGAAGGAGACCCACAGTGAGCAGC
TCCCCTGTGTGCGCGGGCAGGTCGTCCCTCAAGTGTTCACTCTCAGCAGAGAAAAGGCC
CTGGAGAGGGTGACTCCTCTCAGCTCTCAGCAGAGAAGCAGCCCTGGAGAAGGTAGCTTC
TGTTGCGAGGCAGATTGTCCAGAGGTCTGCTGCTCTCAGACGGGGCCCTGGAGAGGATA
GCTTCTATCCATAGGCAGG

Sequence 1509

TABLE 1

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CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATAGCA
GTGGAAGCTGCAGAGGGCCGAAACAAAATGAAGTTTTCTACCAATGTCCAGACCAAATG
GCTCGAAATCCAGCTGCTATTGACATGTTTATTATAGGTGCTACTTTTACTGACTGGTTT
ACCTCTTATGTCAAAAATGTTGTATCAGGTGGCTTCCCCATCATCAGAGACCAAATTTTC
AGATATGTTACGATCCAGAATGTGTAGCAACAACCTGGG

Sequence 1510

CTCCCGCGGTGGCGGCCGCCGGGCNGGACTTTTTTTTTTTTTTTTTTTTTTAAAGAT
CCAGACTAAGACACATCAACAAGAAATTTCCAAATACCAGGTCAAGAATACTTCACATGT
TTCTGGAGGGAAAGAAAACAGTTCATATACAGNGAATCAGGAATTACAATTGCATCAGAC
TTATCAACAGCATCGGGAAGATAATGNGAAAATACCTTCAAAACTCTNGAGGGACACAAG
AAGATGCTGCCTGGCCACAGGAGCGAGACTGCTGGCCTCCAATCAGTCTTNTGGGCAGGC
CTNTGATGCAATTACAGGGCTAAGGAACACGGTAACCAATGTGCCATTGGCTGTGCTAA
AACCAGNGGCCCCAGGAAGAATCCTGTTGACACTGGCTTGGAACATGAGGCTTAA

Sequence 1511

CGACTACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAAGGTACTTTT
TTTTTTTTTTTTTTTTTTTTTGGCATATAATCCAGTTTATTAATACAGATGATGGGC
CAGACATGGTGATAGAGAAATACAGATTAAGAAACCAGATCAAATCCTTTTTAAGGAATT
ATNTAGNGGAAAATATNTCAACTNNTNTTTACNCTACTATTATTATCTTACACTTCA
AATCTTCACCTTTCCATTTTGACNGNCGCTNTTTACTTCAGNNTCCTGAAAACATNTTT
CCAACAGAAGTTACATAAAAATNCTAATCTTCAAGGGGCTTTCTAAAATATTTTNTATCAC
GTCATTAATAATCTTCTTCACTAGGCAANGGTTNTGTCTTTATGGGGGCTG

Sequence 1512

CCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGACAGAAATGGAGTCATCAGTTTATCA
ACCAACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACC
ATATTCCCAGGACAAAAGCCCAGCCAGGCACCAATTAACAGAGGAACAAAAGGAATAT
TGAGGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGTTATTTTTCTGACTG
TCAAGTTTCAACATTAGGTCTGTCCCAACAGGCACCAACCCGGGGGTGGACTCCCTGT
GTAACCTTCTCGCCACTGGCTCGGAGAGTAGACAGAGTTGCCATCTATGAGGGAATTTCTG
CGGATGACCGGAAATGGGTACCTCGGCCGCTCTANAAGTAGGTGGGATCCCCCGGGGCTG
NAAGGAATTTGATATCNAGCTTATCGATACCCGTCCGACCCTCGAGGGGGGGGGCCCGG
GTCCCAGCTTTTTGGTCC

Sequence 1513

NGGGGCCGCCGCCCGGGGCCGGNCAAGCAANGGGGGGCCAACNAAGGCNNGGNNNCC
CCNNGGGGGGNANGGAAAAACGNNGGNAANCCCCGCGGCAACCAAAAGGGGNCCAACAACA
AAACAAGAACCAGGAGGCCCGGGGGAGNCCANAAAAANGGCGGCANAAAAGNCCCNNGG
GGGGGGGGGGGCCCNAAAAAGGAGGNGGGGANGCCAAAAACCAGCNACNAANCAAAAN
GCGGCCCGGGGGGGGCCGCCCAACNNGGGGCCCGAGCCTTAAAGNCCCAAGAANCCGCGG
GGAAAAAACCCNNGGNCCGGGGGGGCCCAAGCCNNGGGCCAANNAAAAANGGGAAAAA
NNCGGGGCCCCCAACCCGCCCGCCGNGNGGGGAAAAGGAAGGGGGGCCGGNNCNCCGC
CCGNAANNCCGGGGGGGGCGGCCCNCCGNGCCCCGCCNNNCCCNCCGGCGGGGCNAAC
CNGGGAACNCGCCGCGCCNGGCCGCCNCCGGGGGNGCCCGGNNNACC GGANGNGGNC
CGGGCCGAAGCCGGGGNANGCAAGCCGNCNAACCNCAAAAAAGGGGC

Sequence 1514

GTNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAAGTCTTNTAAATCTGGTGTGTTT
TTTACACTTGAGCACATCTCAAATGAAATAGCAACATTTACATGCACAAGACTCACAT
ATCTTCTGATGGCTATCTTGTGCAATAGCACAATTCTAGGAAGTTCAAAGGGGGAAACAA
TTGCTTCTCAAATTGATGAAGGTAGAGAAGAATGGTATCAGAGAACTGATTAAGCAGGG
ACCTGGGAATCTGAGTTGAGTTCCGGGGCATGTTTGTCCCTAGCACCATGACCTACATG
GCAGTGTCTTCTCATACTATTNTAAGAGTCCCTGG

Sequence 1515

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAGGCCAAGC

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CCGCGGTGGCGGCCGCCGGGCAGGTACATCACCTGCTGAGGGACATCCAGGACAAGGT

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CACCACACTCTACAAAGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAA
CTTGACGATGGACTCCGTGTCGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCC
CAGCCTGGTGGAGCAAGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGG
CTCCACCTACCAGTTGGTGGACATCCATGTGGCAGAAATGGAGTCATCAGTTTATCAACC
AACAAGCAGCTCCAGCACCCAGCACTTCTACCTGAATTTACCATACCAACCTACCATA
TTCCAGGACAAAGCCCAGCCAGGCACCACCAATTACCAGAGGAACAAAAGGAATATTGA
GGATGCGCTCAACCAACTCTTCCGAAACAGCAGCATCAAGAGT

Sequence 1522

TACTATAGGGCGAATTGGANCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTGGTGGTAATTGAGCTGGGAAAAATCAGAATTGGGTCATAATTAATGGTAACTAAA
CAGATTTGNGAATATGGGACATCTGTGGNCTTGAAAACATCAGTATGATTTGNCCCCATA
TTTCTTCAGCCTGGACAATAGAAACAGACAGGGGGAGGGGGGTAAAGTGCANTAAAGTAGG
CTGAGTGATGTGGTGTAGCAGCTGGAGTCCAGAGAAGTTCTGACAGTGCAGGGAGCAGC
CCCTTTGTTCTTTGGAGCACTGGAAGGGCTGAGCTGCATCTGAGGTGTTCAAGCCACCAA
CAGGACAGGGTAGAGGACTAAGTAGCACATGTCCTCCAGAGCAGCTTCTGTCTTTGTGT
GGTCACATCACATCGGGGAA

Sequence 1523

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTT
TTTTTTTTTTTGTCTTCTGGTAAAAAGAAGCATGTTACAATTTTCCCCCAATTCACATA
GGACTCTAAGAACATATTTTAAATCAGTGCTTCCATACAGGAACGAAATCCACTATTTTA
GAATTCTAAATCTTGTTGAAAAGCAACCTTATCTGAAGAGTAAACAAGAAGATTCAAAGT
TAAGTATCAGTGCAGTCCAGAGCCCCTAAATGAATAAACTGAATGTATCTTAAAAATAG
GATTTGCACACCAGTAAGAGACTTGTTTACGATTCTGGGGAGGAGGGAAGAACTGTAAG
AGGGAGAGAAAAGGGAAGAAAAACAAGAAGAAAAATAATNGGAAAAAAAAAAAAAGAAAGA
AAGGTTTGTAGCTCAAAG

Sequence 1524

ACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAATTGAGCTTAG
TGATATTAACITGGTAAATTAAGCCAGTTTGTCTCTTTGCTTTATCTGTCTTGTTGGAATC
TGTATCAGTGGAAATTAATAGTCTTTACATTTGATGAACCCTGTTTAGGTGTTGGAAT
ACCCATCTATTTGTTAAAAAGGCAAGGTCCCATGATTTAGTGAATGGGGGATACAGACAG
CCTTTATTCAAGTAACTGAATAAACAAGAAATTAGAGAGTGTGATGAGTTTGAATAAAA
AATATAGNTCATAAAAACCAGAAATGTGATAGAGCATAGTGGCTGGAAGAAAGTTACCCA
AGTGGCTTGGGTAGTCAATGAAGTTGACTCCAACATGCAGTAGTACGCCGGGTCCTAAGA
TAGAGATTAAGTCATGGTTTAAATGAGGAACAATCAGTAA

Sequence 1525

CCGCGGTGGCGGCCGCCGGGCAGGGTACACCACTGTGCCTGCTTTGAATCCTTTACGAA
GAGAAAAAAATTAAGAAAGCCTTTAGATTTATCCAATGTTTACTACTGGGATTGCTT
AAAGTGAGGCCCTCCAACACCAGGGGGTTAATTCCTGTGATTGTGAAAGGGGCTACTTC
CAAGGCATCTTCATGCAGGCAGCCCTTTG

Sequence 1526

GAGCNCCCCGCGGTGGCGGCCGNTGTACTTTTTTTTTTTTTTTTGTCTNTTAATTGGA
TGCCTGGAGACAATTCCATTTCAATTACCTATTGGCATGACNAGATATACAAGGGCTGC
CAATGTCAATACATTAAGACTGAGCGTGCTGGAGCAGCAGCCAGGGTTCAGGGCACTGCT
GTGTCATCTGCGCCACGGTGCACAAAGGCAGNTTCAAAGCATTTACAGCATGATCGCTTC
CCTCTCTCGCTCCTGGGGAGAGAAGGATCCTGCACACCACAGGCAAATCATGCTGAAAT
TGAGGNGNGCCCTTTGGGACTCCCATCCCATCACAGTCTTGGGAT

Sequence 1527

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGTGGATATTGGTTGAACA
AACAGGTGGGCAAAGTGAGGAAGATAAGAAGTCCATCCGTTCAAGTTTCCCCACTGCGGAG
GGAATAACACTGTCTTTCCACAGGTCACAGACTGGGATGAGCAACGGGCTGAAGGCACGT
TTCCCGGGAAGATCTGAAGTGGCTGCATCTCCCTTTCTCTGTCTCCATCCTTCTCCCA

TABLE 1
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AGATGGTGAAGGGGGACCTGGTNCTG

Sequence 1528

AGGTACGCGGGATGGCACATANGACATCAGCTAGGCTTTTGGGAATCGTTTGTGTTCTTT
GTGGAAATGTCTTTAGAAGCACCCATGAAGTAGTGTGTTTCAGACTGTGCACACAGAAAA
CAGGCTCTGCCTTCACATGTGAGACGGTGGACTTTTCTNTGGACAAAATGACAGCATNC
TGGCGACTCCACAGTGGAGCTGAGCGCCACTCCCTGTAGCCCGATCTGGGACTGAAACGC
TTACACCTCTGCCTTAGAAGGAGTCCCCCNTGCC

Sequence 1529

CCGCGGTGGCGGCCGCCGGGCAGGGTACGCGGGGGAATTAGTCCGAGTGGAGAGAGCGA
GCTGAGTGGTTGTGTGGTTCGCGTCTCGGAAACCGGTAGGCGCTTGCAGCATGGCTGACC
AACCTGACTGAAAGAGCAGATTTGCAGAATTTCAAAGAAAGCTTTTTTCACTATTTTGA
CAAAAGATGGGTGGATGNGAACTATTAACCAACCAAGGGAATTTGGGGAACCTGTAATG
AGGATCTTTTGGGCCAGAATCCCCACAAGAAAGCAAGAAGTTTACCAGGGAACATTGAT
TTAATGGAAAGTAAGAATGCCTTGATTGGTTAAATTGGCACCAATTTGGACTTTCCCTTG
AATTTCTTGACAAATGGATGGGCCAAGGAAAAAATTGAAANGACCCCAAGNACCNGTTG
GAAGGAAAGGAAAA

Sequence 1530

CCGCGGTGGCGGCCGAGGTACGCGGGTGTTCTTTTTGTTCAAAGTCTATTTTTATTCTT
TGATATTTTTCTTTTTTTTTTTTTTNGNGGATGGGGACTTGTGAATTTTTCTAAAGGTG
CTATTTAACATGGGAGGAGAGCGTGTGCGGNTNCANCCCAACCCGCTGCTNACTTTTCAN
CCNNTTTTCAACNGNCTNTGGGTTTTTAANACCCTNGGNTTTNTACCCCNNTCCTTTGNA
AANCCCTNNNCCNAANNNGNGGGGCAANANCCNGNGGGCCCNCTANAAAAANANCTTGCGG
CCCTGTCCCCCGGGGTTTTGAGGACAANTTTNCCCAAAGCNAAAAAANAGANGTTTTTT
CNCNCTCNNTCCTGGNGGGGGGGGGGNGAAAAAANNTTTTTTTTTCCCN
GNNNNGGGGNGGNNNCTTNAAAAAAANAATGTCCCCCCCCCGNNNNGTGGGCG
NNAATTTTTNTAANAATATTTTTNNCCCCCCCCCCCCCCCCCGGGGGGGG

Sequence 1531

ATAGGGCGAATTGGAGCTCCCCGCGGNGGCGGCCGAGGTACCATTCGGGTGATCCGCAG
AAATTCCTCATAGATGGCAACTCTGTCTACTCTCCGAGCCAGTGGCGAGAAGTTACACAG
GGAGTCCACCCCGGTGTGGTGCCTGTTGGGGACAGACCTGAATGTTGAACTTGACAGTC
AGAAAAATAACTCTTGATGCTGCTGTTTCGGAAGAGTTGGTTGAGCGCATCCTCAATTT
CCTTTTGTCTCTGTAATTGGTGGTGCCTGGCTGGGCTTTGTCTGGGAATATGGTAG
GTTGGTGATGGTGAAATTCAGGTAGAAGTGCTGGGTGCTGGAGCTGCTTGTGGTTGATA
AACTGATGACTCCATTTCTGTACATGGATGTCCACCAACTGGTAGGTGGAGCCCAGCCA
ATGGGAATGAGGCATTAGGGTCTTATCTAGAAAGACTTGCTCCACCAGGCTGGGGTCCA
AATTGGAG

Sequence 1532

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGAGAAGGTCCCGGCAGCACGCACGGA
AGAAGACGGACCCCGCGATGAGGGCGGCGGCAAGGAGCACCTTCATGTTGCGTTCCGAGA
GGCGCAGCATCCACAGGCCCGCGTACAGACTGGTTTGGTAAATGCTAAACTTTTGTGTC
TTTTGCCTTTTTAAAGGAATTGTTAACATTGGAATTGAGGGTATGTACCT

Sequence 1533

AGGTTTTGGGCGATCGTTTTCATACGAAATATTTGAGATGCTTTAGATGTGTGTGCATGT
CAGCTGCCACCTGAAAGAAAGGCCTCATTAAAGATTTCACTGATTAACCTTTTGATTGT
TCTTGGGATCTCAGATGGGAATTCACGCTGCTTGCTGCAGAGCTCTTGGGCTAAGTGAT
TTTCTTAATTACTGAGAAATGCGTGTTATCAGTAAGCAGTGAAAAGTCTTGAAAAACTA
AGTAATTTTAAAAAANGTCTGCCCG

Sequence 1534

NCGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTT
TTTTTTTTTTTTTGGNGGNGTTTTTCATTTTCTTCTGGACTGGTAATTTTTACTTCT
GGCCTTGGTGGTCTTTGAGGGTCTACATCAGCCTNATCTTGCTCACTGCCAGCTCCTTGA

TABLE 1
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GACTTTCTTTCTTGTCTAGGACCAGTTGAAGCTCATTATTAACCTGCTGCAGCTCCTCA
CCATTCTCCTCATCGNGCCTCCATTTACACGAGCAGGGCGTGCCTGCTGCTCACTGTGA
TCCAAAATCTCCTNGACTTGCTCAGGGGCATNTGTAGCCTCC

Sequence 1535

CACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTGGTG
TTTTTGGAAAAGTTACATTTAGATCTATTCTGAAGCTGTTCATTTTTAACAAATAAAAT
GTTACAGGTTTACATGATTTATTCGCAAAAAAAAAAAAAAAAAAAGTACTGTCTGTGA
ACAGCAAGGAAAATATGATTACACCTAAGAGATGAAATTGGCATAGGCGAGAAGTCAGAA
AAATAATCTATACAGCTTGCATGGTTGGGGAGTTAGGAGAGGCCAAGGCCACGTGCACGT
AGAGCAAGAGGTAGAAGAGGCCCGGGGGCTAGAGCGCACCCCTGGTGGATAGTGTGAGAA
TTCACACTGGCTCAAGCCTTGAAGACCACCCAGGGGTGCGCCTTAGCAACGCACCTATG
CAAGACCCCAACAACCTGGCCCTTGAAGGAGCTTTTTACTGGTGGGATGTG

Sequence 1536

AGGTACTAATATCCCTTAATGGCAGAATGTGATAATCATGGAATTAATTATTGCTAAAGT
AGTTTTCAAATAAAAAAAGAAAAAGAAAAACAAACAAATTAACCTTGACACAATCTGA
CCAAACACGTGTCAATTTACAATTTCAAGGTTATTTTACAAAATACCTACATTTACACAA
TAGGCTCCCGGCAGCATTTCAGACAAATGTTCTTTTAAATTTATCCTGACATGCTATAAA
TGAATAAATTACACTATTTTAAAAATTATCATCAGTAAGTTTTCTTTCTCATGGGGGT
CAANAGCAAAAAAGAAATNNAGGCNTGCCAAAGGAAGGATTTGGAGAGGGGAAAGCCGC
CACGCACCACCACTATAACCTTAAAAATAACAGGGAGGGGGCTGGGGGGAGGGGGTCAAC
AAATTCACCTTGAACCCCTCAACAAGTGGTGGATGCCTCTTCCAAAGGGGGGNGGAAAA
GGTTCAANCTTGGCTTTTATTAGGCCCANTTTCAAAAAAGGTATTTTTAAAGNAAAA
ATGGTTTTTGGTANGGGGAAAAA

Sequence 1537

NCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTCAAACACCTCATGA
GGCTGGCCAGAGATGACACCACTGCCCGGATGCAAGGGGGCAGCCTTGCTTGGACCCC
GTTCTGAATCTCAGGCTTCATCTATTAGGCACACTGAGCAGAAACACTCCTCCCTGCCA
TTCCGAGTTGCAGCAAAAAGGGTCTAACTATGATTTAAAGCAAATAATTTTAACTTCAA
ATTTTCATTACTGTCTACTTATGAGGACCAATAATGTAATGACTAAGACATCAAATTA
CATGTAATATGAATAAAACAGTAAGAAAATGATAGTTACTTATAATTGGATCAACATAC
AAAAAGAACGTCATTTGGCCAAAGTAAACGGTTAAAAAATAGTGTCTATAAAATCACC
ATATAAAATCTTAGTATGTACCTGCCCG

Sequence 1538

CCGCGGTGGCGGCCGCCCGGGCATGGTACAAAACAAATTCAAAGGGTTAAGAATTTCAAG
TTGGTAGCTTCAGAGCATTAAAGCCCCAAATGTGGGGTCCCTTCTGAGCCCAGGATTATGT
GTGACTGCACTGGTCACATTGCCATGAAGCCAGCCCTGGTGGTTGGTAGAGGGGTGGGCA
CTGGACCTAAGCAGGGCCAATCAGAGCCATTCTGGAAATGGATATATAAATATTAGGAA
TGCAAAGTTATTTATTTGTTAGAGTTGAACAACNGTGATCTGTAGAAAACCAAGTCACA
TTTCCTTAAGGATGCATNAATAAATATGAGCTAAATGTAATAATTAGAATTTGGTTCC
AAGCAGATTCCATGCTCTAATTCCTGGATAGGTGAATATAATAAGATGATNTATCCNTG
AATAAGNTNCTTTTNCCTTTGCCCAAGGGGACANGATGGTAAATAAGGGCTACTAAATCAA
GTTGNCCTTTAAATAA

Sequence 1539

CCGCGGTGGCGGCCGCCCGGGCAGGTACAAAACAAATTCAAAGGGTTAAGAATTTCAAGT
TGGTAGCTTCAGAGCATTAAAGCCCCAAATGTGGGGTCCCTTCTGAGCCCAGGATTATGTG
TGAATGCACTGGTCACATTGCCATGAAGCCAGCCCTGGTGGTTGGTAGAGGGGTGGGCAC
TGGACCTAAGCAGGGCCAATCAGAGCCATTCTGGAAATGGATATATAAATATTAGGAAT
GCAAAGT

Sequence 1540

GTAATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCATGGCCCTTCCTT
TGAAATCATTTTTTCTTCCAGGCCCTTGCCTCCGGGCCTGGGAGACAGAATGAGAGACA

TABLE 1
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GCCCCAAGGATCTGTGATACACTTTTCAGGGTCATTTTTTCTTGTCCCTGCCAGTCCAGG
CACACCTTTTGTGTTCTCTCCTGAACATACTTTCTCATTTTTTACAATATGGAAAGGCTG
ATAATTTTTCAAACCTTTAAGTTCTCTTTCTTTTGATTGACCATTTTGTCTTTAAATCA
TTTTTCTTCTCACATTTTATTATTATAAACATTCAAGGGAAACCAAGCCATTATTTTGCT
TAGAAATTTATTAGCCAGCTGGGGCGGTGGTGGCTCACACCTGTAATCCAGCACTTTG
GGAGGCCCGNGGTGGGGTAAGATCACCTGAGGTCAAGGAGTTTCGAGACCAGCCTGACC
AATAATNGGTGAAACACTTGNCTTNTACTTAAAAAATACCAAAATTT

Sequence 1541

GGAGCTAAACCCCGNGGCGGCGGAGGTACTTACCCTCAATTTCAATGTTAACAATTTCT
TTAAAAAGGCAAAAGACACAAAAGNTTAGCATTTACCAAACCAGTCTGTACGCGGGGCCT
GTGGATGCTGCGCCTCTCCGAACGCAGCATGAAGGTGCTCCTTGCCGCGGCCCTCATCGC
GGGTCCGNCTTCTTCTGCTGCTGCCGGGACCTTCT

Sequence 1542

CCGCGGTGGCGGCCGAGGTACACAAACGAGATGCTACCTAGGAGAAGGGTATTCTTTTCA
CTATTCTTTCAAATTTTCTGTATGTTTCAACATTTTCATAGTAGAAAGTTGGGGGGAAAA
TCTGTTTCATAAACATTTCTCAGCAGCAGTCCAGTCTATTGCATTTTAATTGGTTGTGA
TATCATTGTTTTATGCAATACGTTCTCAACAAGTATATCCTCCGGCAAACCTGAACAAGGA
CCAAGTCTGTTCTGCCTACAGCTCTGCTTCTCATAGCTGCTTTCCAGAACGTGACTCTT
GCAAATTATCAAGAAAGGGGAAGTAATCTAAGGGATCCAGATCAACAGCCTNATGAAGA
CCTTAATTTATGNTTCTAANATAAAAGATAGGAAGTTTTCAAAAAAGCCCTGCTTCA
ANAGGATCAANANCAGGGGGTGGGCCCTGCTGGGCTTNCAGTGGGATTTTTTGAGCATTN
CTTTCCNGNGGCGNCGGNAAGGGNGTGGNGTGAGCCCNAGGNGGAAAAAATTT

Sequence 1543

CCGCGGTGGCGGCCGAGGTACTCCTTCGTAAACCATGGAGAGCCAGCCCAATGCACAGCA
GTGGATATCATCTTTCTCAGAGTCCAGTATCACAGAATCACGACTTTGTCCAGCTGCAGG
TGCTGCAGGTACACTGGCTAACTACTTCTGTGATGGGCTCTTCTTTCTGAGGTTCTGC
CAACTTGTCTACTACATAGGGTTGATCATCCTGTTGAGGAAATATTTCTTTCAATTTGCTC
TGAGCTTAATATTGTAATTTGATTTGATCTGAGGCTTTGGAGTCAGGACTGGTTTT
ATCAAGCAGTTTGATCTTCTGAGGTCTGGTATTGTAGTTTGCTGGCCACAGAACCTTCA
CGTGTATTCACAGCCTCAATGCCATAAGGAAACTCTTT

Sequence 1544

CCGCGGTGGCGGCCGAGGTACTCCTTCGTAAACCATGGAGAGCCAGCCCAATGCACAGCA
GTGGATATCATCTTTCTCAGAGTCCAGTATCACAGAATCACGACTTTGTCCAGCTGCAG
GTGCCTGCAGGTACACTGGCTAACTACTTCTGTGATGGGCTCTTCTTTCTGAGGTTCTG
CCAATTGTCTACTACATAGGGTTGATCATCCTGTTGAGGAAATATTTCTTTCAATTTGCT
CTGAGCTTAATATTGTAATTTGATTTGATCTGCTGGGCTTTGGAGTCAGGACTGGTTT
TATCAAGCAGTTTGATCTTCTGAGGTCTGGTATTGTAGTTTGCTGGCCACAGAACCTTC
ACGTGTATTACAGCCTCAATGCCATAAGGAAACTCTTTAAGAAGTTCTGACAGCTGGT
CATGTTAGGTATAAGAACAGGGTGCCTTATCACTGGTGGATTTCAATTTCT

Sequence 1545

CGAGGTACTTTTTTTTTTTTTTTTTTTTTTGGGGAGTTTGTGTTTTTAACCAAATTATNA
TAGATGGAAGCATTAGGCAGCTGAATGTTTCAATTTGCCTTCANACATCATNTCTATTTCA
TTTGCTNGNCTCGCATTAAAAAGAATCATTTATCAGCAAAAGCATCATTTATTTGTTTAA
ATGACAAGGTTTAGCTAGCAGAGNAGAGTTTGCNATGCTTTTAAANAAATAACNTTTGAC
TTTTCTTCAAGACTACAAAACCATTTGTTCAAAAAAGGCTGCCCAANGTCATTTANAA
GAATATTTTTCAAAANGTCTATTTTNTATTTTTAAAAAAGTTGCCCTTACCAATCTTT
GGTTTTGAATTCACCTGGGCCTTTTCTTTTAACTTGAAAGGGCTTAA

Sequence 1546

GGCGGCGGCCGAGGNACAAGNANCNNTTGGNGGAGGGGGGNGAAACCCAAANACCCGAACN
NGGGACTGNGCAGACAAGCTATATCTTAANCCNCNCCGGGCCAGACCNCNAGCAAGGN
GAGGAAGCAAAAGNCCACAGNNACNGGGCAGGNAANNGGNANAAANGAGGGNGNGGGGC

TABLE 1
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NGGNTGCGGTGNTTACAGGGGGAANCCCAACACCCCGGGAGGNCGAGGCAGGAGGANCG
CCCAGGCCAGGAGGNGAGACCAGCCNGGGCAACANGGNGAAACCCNGGCNCNACAAAA
AANACAAAANNAGCNGGGCANGGNGGNNNGGGCCAGNGANCCCAGCNANNNNGGGGAGGCN
GAGGNGGGAGAAAANGCNGAGCCCAGGAGGCAGAGGNGCAAGNGAGCCCAAGAANGCGC
CACCGGAACNCCAGCCCAGGCAACAGAANGAGAACCCGGNCNCACANNAAAAAAAAAAAG
AAAANGAAAAAGAAAAANGNCCNGGCCGGGCCGGGCCGNNCAGAACCCANGGGGAAC
CCCCCGGGCNGCAGGAANNCCGAAANCAAAGCCAACNGANACCGGNCACCCCGNGGGGG
GGGCCNNGNACCCANNNNNNGGNNCCNNAAGGGGAGGGGNAANGGCNCGCCNNGNC
GNAACAAGGGGCAAAAGCNGGNNNCCNGGGGGGAAANNGGNANNCNCGNCNCAANNCCC
NNNAAAAAACNAANCCGGAAGCAAAAGGGNAANNCCGGGGGG

Sequence 1547

AACACCACCGCGNGGCGGCCGNCNGGCGAGGNACTTTNNTTNGGGGGNTAAAAACCCC
CCNAAAAACNGGGCCCTAGNAGAAGGCAACNTTCATTNCAAACGAGGGGGCCCCNGCCCC
GNGAAAAACGGGGAACACGACGNCNAAGGCAGANCCCCGNAAGNACCTACNNNGGACAG
CCGGGGCAGGCGNGCAAANNNTTGGGCNNGGCCNCGCAAAGCACAAAGGGGGACACANA
ACCCACTGCCACGGCGCAGGAGAAAAAAGAAACAGCAAANCACGAGGGGACAN

Sequence 1548

CCGGGCAGGTACATCANTTNTGCTGAGGGACATCCAGGACAAGGTCACCACACTCTACAA
AGGCAGTCAACTACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGACGATGGACTC
CGTGTGGTCACTGTCAAGGCATTGTTCTCCTCCAATTTGGACCCAGCCTGGTGGAGCA
AGTCTTTCTAGATAAGACCCTGAATGCCTCATTCCATTGGCTGGGCTCCACCTACCACTT
GGTGGACATCCATGTGACAGAAATGGAGTCATCAGTTTATCAACCAACAAGCAGCTCCAG
CACCCAGCACTTCTACCTGAATTTACCATCACCAACCTACCATATTCCAGGACAAAGC
CCAGCCAGGCACCAACCAATTACCAGAGGAACAAAAGGAATATTGAGGATGCGGTGAGAAG
GGGGTGCTCAACCAACTCTCCGAAACAGCAGCATCAAGAGTTATTTTCTGACTGTCAA
GTTTCAACATTCAAGTCTGTCCCAACAGGCACCAACCGGGGTGGACTCCCTGTGTAAC
TTCTCGCCACTGGCTCGGAGAGTAGACAGAGTTGCCATTCTATGAGGAATTTCTGCGGAT
GACCCGGAATGGTACCTTNGGCCGNTTCTAGAACTAGGNGGATCCCCCGG

Sequence 1549

CCGCGGTGGCGGCCGAGGTACGCGGGGCTTGCATCTCTGGGGCCAAGGAGTGGTGGGTGA
GATCTTCCATGGCCCTGGCATGGGTGATATAAGCGGGACCGGTAAGGTGGTGGAGCTCTT
ACCAGACCCTGCANAACCTCTCCGTGGTGTGAACTTCTGGAACCAAGGTGTTGCATG
TTTTCTCATAATGCAGGTTGGTGATGGTGAAGTTGAGGGTGAACGGCACCAGGAGAGGG
CCAGCAGTTGTGGGGCTGGGGAGGGAGGATGGAGTCCCTGACCAAGGTCCACTGTGGAG
GTCCCAGGAGCTGAAAAAAGT

Sequence 1550

AGGTACTTTACAAACAAGTCTGAAAAAGGAGGGAGTAAAGTATGGAAGAATGATCTCTGG
ATGTTGCTACTGGCCTCAAAAAAGCAGTGCTACAGATTTCTGTGTGAAGAGAATACGCTG
TTCACACATTTTCTATTTCCAGGCATGAAAAATATTCTATTGGGTAGAAGAAATAGGAAA
ATCTCTTATGACAAATGAAAGACAGGTGCAACACACCAATCCCTGTCTAGCAGTATAAA
GCATATTGGGCTCAGAATTTGTCTGTTGCTAGCACCTGGCTTTCATACTATATCCTTATC
AAATAATCAGATTGAAAGTCCAAATCATTCTTAAGCAAGCAAAATCCTCAGTGGCCATA
CCTCA

Sequence 1551

GGCGGCCGCTCTAGAACTAGNGGANCCNTTTTGGCGGGGGAAAAAACCCCAAGCCANC
GANACCGNCGACCNCAGGGGGGNNCCCGGNACCCAGCGNNNGCCCCNAAAGAGAGGGNN
AANNGCGCGCNGGGCGNAANCANGGNCANAGCNGNNNCCNNGNNGAAANNGNNANCCGCN
CACNTTTTNNNTTNNCNGACGAGCCGGGNGCANAAACCCCAANANA

Sequence 1552

CCGGGCAGGTACGCGGGCTGCCTGGGGATGGCAGCCGCGTGCGTTCCCTGTGCTGTCTG
TAGGGTTGTGGTGGCTTTCTGATATTCAGGTTGGTCCCTTTTCTTTTGGATGGGC

TABLE 1
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TTTCGAGGTTGGGAGAGGAAGCTCAGGGATGGAAGTACTAAACATATGTGAGATGTTTC
CTTGTTTGCTGCTCATGGAGGTTTCATTCTGAAGTCTTTCTTGGGAGGGAAAAGGATG
TGTGGATATATGAGGTGACTCTAGAACCCTCATTTTATGGATGAAGAACTGTGATTCAC
AGAGGGAGAGTGATTTGTCCAGTGTACGTGGGGAGCTGGCCGGGGAGCCAGACCTCCTG
TACCTCGGCC

Sequence 1553

TACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATTTCCATG
GGCCCTGTTCCCATTTGATGTATACTGCTTCCTTACTAACAGTGAGGGATGACTTTTCATCA
GTCTTTTATCACCTGAACAGTCTTCCGGCCATAATGATAGTAACTATAAGCTGATGCAGC
TGTGGTGAAAGCTGTAAACACCTTTTATGGAAGAAAAGAAATAAAATGTAGTTGTCAAG
TCTAAAAAATAGTAGCAACGGGAATCATAATGAATACATGCAATGAATTTAAATGTAAA
AATGAATTTAAAAAGTAAAAAGGGCTCTGTGGTGTAAATTTTCTTAAGTACAAGAGTCTA
AATACACTGCTTTTCTTTAAGAGTTCAATTTAATTAGTAACGTCAAACAAAATTATTCTA
GATAATGAGCCCTACAAA

Sequence 1554

ATCGACTNCTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACGC
GGGTGGCCAGATTAATTTTCCAGCCAATAGAGGAAAGTTTTATATATTTTTTGCTAAGG
TGCTGGAGAGGGGAAAGGATGCCACACTTCAGAAGCAGGAGGACGTTGCTGTGGCTGCTG
CAGTCTTGGAGCCCCTGCTCAAGCTGGCCCTGCTGGCCGGCCTGACCATCACTGTTTTTG
GCTTTCCTATTCTCAGCTGGCTCTGGATATCTACGGAGGGACCATGCTTAGCTCAGGAT
CCGGTCCTGTTTTGCTGCGTTCCCTACTGTCTCTATGTTCTCCTGCTTGCCATCAATGGAG
TGACAGAAGTGTTTCACATTTGCTGCCATGAGCAAAGAGGAGGTGACAGGTACCT

Sequence 1555

CCGCGGTGGCCCGCCCGGGCAGGTACAGCAAAAAAGAACTGAGAAGCCCAAAGTCTTT
CTTGTTAACATCCACTTATCCAACCAATGTGGAACTTCTTATACTTGGTTCCATTATGA
AGTTGGACAATTGCTGCTATCACACCTGGCAGGTAAACCAATGCCAAGAGAGTGATGGAA
ACCATGGCAAGACTTTGTTGATGACCAAGATTGGAATTTTAAAAAATATTGTTGATGG
GAAGTTGCTAAAGGGTGAATTACTTCCCTCAGAAGAGTGTAAGAAAAGTCAGAGATGCT
ATAATAGCAGCTATTTTAATTGGCAAGTGCCACTGTGGAAAGAGTTCCTGTGTGCTGA
AGTTCTGAAGGACAGTCAAATTCATCAGCATGGGGCTGTTTGGTGCAATGCAAAAGCAC
AGGTCTTTTTAG

Sequence 1556

ATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGTCCACATCCCGAAGGCCATAGCGTC
GAGCAAGGTCACATGGATGGCAGCACCTTACCACTCAGGCTCAGGATATTGGGATCTGTT
GCCAAAGCCACCACACATTTGCCACTCAATTCTGTGGTTTCCGCAGATGAGAAGGCTGAT
TTGAAGTCTTCAACACAGGATCCTGCAGGACCTCCTCCTTTGCCATATGCTCCTTCAGC
AGTTCTGTCTGCACAATCCCCGGCCACAGAGACACACAGCTGACCCCATGGCGCCGCAGC
TCGTGGGCACAGTCAGCAGCCAGCTTGTACACGCAGCTTTGCCACACCATAGGGGACA
TTGAACATATACTGCAGGCTTCCTGGGGAGGAGATGACCACGATNAGCCCCTGGCCAGCT
GGTACCT

Sequence 1557

CTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGGGT
CCTGGTGCTGCGGCCACACCACCTGGGGTGCTCATTGACAGAGCTGCCATAATGAATT
GAAAGGACGGGAATCACCGAGGGAAGCTGGGGCTCCCCTGCCACAGGAGAGGATCCCCG
TTCTTCAAGCTTCTGCTCAGTGTCTACTAACGACCGACATTTGCTAATGTAAATAATA
GTAAATTATTGAGAATTCTAATTTTACACAGTCTGTTTTTAATCTATTTTAATTTAA
TAAATCTATGACT

Sequence 1558

CCGCGGTGGCGGCCGGGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCT
GAGACTTCTGGAGAGACCATTAAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAAC
CAATGAGGAAGGAGAGAATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCAAAATACG

TABLE 1
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ACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTCTCTGAGCGCTGTCTATCGCA
TCTGCCTGGGCAAGTTCACCTTCCCTGGGATGTCCCTGGACAAGAGACAAGGAGAAGGCC
TTAGGATCTACTGGGGGAGTCCGGAGGAGCAGTCCCTTCTGTCCCGCTGGAACCCATGGT
CCACTGAAGTTCCTTATGCTACTTTCACTGAGCATCCTATGAAATACACCAGTGAGAAAT
TCCTTGAAATTTGCAAGTTGTCTGGGTTTCATG

Sequence 1559

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCCAGGCACAGCTAA
TTTTACTTTTTATTTTCTTGAGACAGGTCTCACTCTGTTGCCAGGCTGGTCTTGAAGTC
TTGGCCTCAAGTGATCCTCCAGCCATGAGCCACTGTAAATGTCTGGGAATGCCAACTTGA
AGCCCAGCTGGTCAGAAGTTCTAGAGGCCAGACTTGCAACTGGTGTCTGAAGGGATGGC
AGTCTTGGGGACTGAGCCCTCAACCTGAGGGATCTGATGCTATTTCCAGGCAGATAGTGT
CAGAATTAATTGGAGGATACCGCAGTTAGTGTCTGCTGCAGAACTGATTGCTTGCTTGC
TGGTAGGGGGGAAATCCCCACATATTGGGGGGGTATTTGAAGTCTTTTGGTGTGACTCT
TACTGNGTTTNGTTGGTTTTTCATGTGAAGAGCAGAGGGGAAAAGCAAGGGA

Sequence 1560

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTACTGACCCAACAAGTGTGACTA
GCTGGCCACGTCATTCAGGGCTGGTGTGGCATTATGTGTGTGTGTGTGTGTGTGTGT
TTCCTGTTTGGCCAGCAGTGCATTGTGGGTTCCAAGAGTGGGTAGTGTGTGTATGTGTGT
GTGTGAGAGGGAGACCTGGCAGGCACCTNTTGTAGAGTAGCTGTGGTCAGAGCTGTTTGG
TCAGTGCATTATGTTGAATGAGGTCCAGGAACCCAGAGCCACCCAGCAGACACCACTGTG
GCTTGCCAGCTGCCAAGATGGAGAAGCATGTGCCCTGTAGAGCGTCTTCCCAGAACCCAG
ACCCCGAGCCACTCGCTTCTCTGTGCTGNGACAACATTGGTGCCAGGGGAGATNGTTNT
TTTTTCAAAGGGGACCTACTGTAGCCCCTTTAAAT

Sequence 1561

CCACTCACTATAGGGCTGAATTGGAGCTCCCCGCGGTGGCGGCCGGAAGAGCAACCGAGA
TGAAGGTGAAGATGCTGAGCCGGAATCCGGACAATTATGTCCGCGAAACCAAGTTGGACT
TACAGAGAGTTCCAAGAACTATGATCCTGCTTTACATCCTTTTGAAGTCCCACTGAGAA
TATGTAAGAGCTTTAAATGCTACCAAAGTGAACGAGTATTTGCAAAACCATTCCTTGCT
TCGCTGGATGGTCACCGTGATGGAGTCAATTGCTTGGCAAAGCATCCAGAGAAGCTGGCT
ACTGTCCTTTCTGGGCGTGTGATGGAGAGGTTAGAATTTGGAATCTAACTCAGCGGAAT
TGTATCCGTTACCT

Sequence 1562

GGGCGNGTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCTTCTGCCTTCCCCATATA
CTGAAGTTTGAGAGGCTGGGAAGGTGCGGAATGGGAAAAGGAGCAGCTGCTTATGTTGAG
TTTAACTTCTCTGGGTTTCTCCATCTAGGTCTTGAGTTCATTCTCTTCTGCTCTTTG
GCTTCTTGTTTAACCTGGTCCCTGTTTCAGGAGAGAAGCCTCATCAGTGCCAAGTCTGT
GGGGAAGACCTTCTCTCAGAGTGGAAGCAGGAATGTGCATATGAGAAAGCATCACCTGCA
GCTGGGAGCAGCTTGGGAGTCAAGAGCAGGAGCAAAGTCTGAGCCACTAATGGGGCAGT
AGTTTGCTTG

Sequence 1563

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCTTCGTAAACCATGGAGAGC
CAGCCCAATGCACAGCAGTGGATATCATCTTCTCAGAGTCCAGTATCACAGAATCACGA
CTTTGTCCAGCTGCAGGTGCCTGCAGGTCACTGGCTAACTACTTTGTGATGGGCTCTT
CTTCTGAGGTTCTGCCAACTTGTCTACTACATAGGGTTGATCATCCTGTTGAGGAAATA
TTTCTTTCATTTGCTCTGAGCTTAATATTGTAATTTGATTTGATCTGCTGGGTCTTTGG
AGTCAGGACTGGTTTTATCAGCAGTTTATCTTCTGAGGTCTGGTATGTAGTTTGTGGC
CCACAGAACCTTCACGTGTATTCACAGCCTCAATGCCATAAGGAACTCTTTTAGAAGTT
CTGACAGCTGGTCATGTAGGTATAAGACAGGTGCCTTATCACTGTGGATTTCATTTCTTG

Sequence 1564

CCGCGGTGGCGGCCGAGGTACAAATTGTCGTTTTTATTCCTCTTATTGGGATATCATTTT
AAAACTTTATTGGGTTTTTATTGTTGTTGTTTATCCCTAACCTACAAAGAGCCTTCC

TABLE 1
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TATCCCCCTCGCTGTTGGAGCAAACCTTATACCTTACTTCCAGCAAGCAAAGTGCTTTGA
CTTCTTGCTTCAGTCATCAGCCAGCAAGAGGGAACAAAACCTGTTCTTTGCATTTTGCCG
CTGAGATATGGCATTGCACTGCTTATATGCCAAGCTAATTTATAGCAAGATATTGATCAA
ATATAGAAAGTTGATATTCAACCTCACAAGGGCTCTCAAAGTATAATCTTTCTATAGCCA
ACTGCTAATGCAAATTAACATATTTTCAATTTAACATGATTTCAAATCAGTTTTTCAT
ACTACCTTTTGCTGGAAGAACTAAAAATATAGCAAATGCAGAACCACAAACAATTGAA
TGGGGTAGAAACATTGTAAATATTTACTCTTTGCAAACCTGGTGGGTATTTTATTTTGG
CTTCATTTCAATCATTGAAGGTATTTCTATTGGAAATGTACCTGCCCNNGCCGGCCGC
TCTAGAACTAGTGAATCCCCNNGC

Sequence 1565

ACTACTATAGGGGCGAATTGGAGCTCCACCCGCGGTGGCGGCCGCCGGGCAGGTACTTT
TTGGTGTTTTTGGAAAAGTTACATTTAGATCTATTCTGAAGCTGTTCATTTTAACAAA
TAAAATGTTACAGGTTTACATGATTTATTCGCAAAAAAAAAAAAAAAAAAAGTACTGT
CTGTGAACAGCAAGGAAATATGATTACACCTAAGAGATGAAATTGGCATAGGCGAGAAG
TCAGAAAAATAATCTATACAGCTTGCATGGTTGGGGAGTTAGGAGAGGCCAAGGCCACGT
GCACGTAGAGCAAGAGGTAGAAGAGGCCCGGGGGCTAGAGCGCACCTGGTGGATAGTGT
GAGAATTTCACTGGCTCAAGCCTTGAAGACCACCCAGGGGTGCGCCTTAGCAACGCA
CTTATGCAAGACCCCAACAACTGGCCCTTGAAGGAGCTTTTCACTGGTGGGATGTGGCC
CTGCTTGATTGACAACCATAGTTTTAACAAGCCANCATTAAATCCACAAGTCTTTGCCA
AAGCACTTTAAGCCTNTTGACATTTATTGGAATTAATTTACCTGCAAGGAAAGTTCATAT
ATCTAGCTTTGGTAACCTACATTCGGGAAAAATGTTTCCATGANATAACTAAANCCCC
ATGAATGATACAATCTTGACAAAACCCAAAGNNGGCATAATTAGCATAAACTCCAAAT

Sequence 1566

CCCGCGTCCGGCATCTCCCAACGTGACTGACCCGCGGACCACGACCCGCAAAGTGGTCCC
GACGACGCTCACCACCACCAAGCCGCCAGAAACCTGTGAGAGCTTCAACAGCTGTGTTTC
CTGTGTCAACGCCACCTTGACTAATAATATTACCTGCGTCTGGCTAGATTGCCATGAAGC
AAATAAGACCTATTGTTCAAGTGAATTAGTAAGTAATTGTACCCAGAAGACCAGTACTGA
CTCCTGTTCTGTAATACCTACCACCCAGTGCCAACCAATTCTACAGCTAAGCCTACAAC
TCGGCCTTCTCTCCTACACCTACTCCCTCAGTTGTACATCAGCAGGTGCAACAAATAC
CACTGTGACTCCAACCTCACAGCCTGAGCGGAAGTCCACCTTTGATGCAGCCAGCTTCAT
TGGAGGAATCGTNCCTTGCTTGGGTGTGCAGGCTGTAATTTCTTTCTCTATAAATTCTG
CAAATCTAAAAGAACG

Sequence 1567

TCGCCNCGCGTCCGGGCAACTGCAGTTGGAAAAAAGATTCAACTTCAAAGCAGAGGATT
TTTGATGAAGAACCAGCTAATGGAGTGAAGATAGAAAGGTTACAAGGGATGATCCTTGG
TTATCTTCATGTGAAGAAGTGGATGATTGTAAAGACCAGTTGGAGAAGCAACAGGAAAA
CAAGAGATACTTTTGCAGGAAGTGGCATTCACTCAAAGGAAAGCAGTTATTCATGAGAGA
GTCTGCAAAAGTGATGAAACTGGGGAGAAGAGTGGTCTGAATTCCAGTCTATTTTCATCC
CCAGTTATACCCATAAGAAACCATTTTCATAAACATGTATCACATGCTAAAAATGGCAT
CTTAATGCTGCTGTAAACAGTCATCAGAAGATTAATGAGAATGAGACACTATATGAAAT
AATGGAATGTGGAAACCCCTCAGAGCATTACCTTATTAGTTTACAAGAACCTCAAA
CA

Sequence 1568

GCTCCATGCCCTTCTCTGAGACGGGGACCAGGGGATGGCAGNCATGCACCTGACAGCCTG
GCCCNAGAAGTCGGTGACCTTTGAGGACGTGGCTGTGTACTTCACCCAGGCGGAATGGGA
TGGCCTGTCCCTGCACANAGGACCCTGTACAGGGATGNGATGCTGGAGAATTATGGGAA
TGTGGCCTCCCTGGGATTTCACTTCTCAAACCTGCTGTGATCTCAAACTGGAGGGAGG
AAGTGAGCTGGG

Sequence 1569

CGCGTCCGTTTCTCCTGGCACCTGTATTCATGGCCTTGGCGTTCTGCCTCTGCATGGCT
GAAGCCATCCTACTCTTCTCACCTGAACACTCCCTGTTCTTCTTCTGCTCCCGAAAAGCA

TABLE 1
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CGGATCCGGCTCCACTGGGCAGGGCAGACCCTAGCCATCCTCTGTGCAGCTCTGGGCCTG
GGCTTCATCATCTCCAGCAGGACCCGAGTGAGCTGCCTCATCTGGTGTCTGGCACAGC
TGGGTGGGAGCCCTGACACTGCTGGCCACTGCTGTCCAGGCACTGTGTGGGCTCTGCCTC
CTTTGTCCCCGGGCAGCCAGGGTCTCAAGGGTGGCTCGCCTCAAGCTCTACCATCTGACA
TGTGGACTGGGTGGTCTACCTGATGGCTACAGTAACGGTGCTTCTGGGCATGTACTCAGT
ATGGTTCAGGCCAGATCAAAGGTGCGGCCTGGTACCTGTGCCTG

Sequence 1570

CGTCCGCTAAGTTCCAATATTGAAAAATCTGTAAAAGACCTCCAGCGCTGCACAGTGTCT
CTTGACGGTATCGAGTTGTAGTTAAAGAAGAGATGGATGCCTCCATTAAGAAAATGAAA
CAAGCCTTTGCTGAATTGGAGAGCTGTTTAATGGATCGAGAAGTGGCGTTGCTTGCTGAA
ATGGACAAAGTGAAAGCTGAAGCAATGGAAATTTTGTCTAGCCGACAAAAGAAGGCTGAA
CTTCTAAAGAAGATGACTCATGTGGCTGTTCAAAATGTCAGAGCAGCAA

Sequence 1571

GCAGCCGGCCATGCAGGCGCTCATCCGAAGTACATGGACCAAATTATCACCTCCAAGGA
GCACCTTGCCAGCAAGATCCGAGCCTTCATCCTCCCAAGGCAGAGGTGTGCGTGCGGAA
CCATGTCCAGCCCTACATCCCATCCATCCTGGAGGCCCTGATGGTCCCCACCAGCCAGGG
CTTCACTGAGGTGCGAGATGTCTTCTCAAGGAGGTACGGACATGAACCTGAACGTCTAT
CAACGAGGGCCGGCATTGACAAGCTGGGCGAGTACATGGAGAAGCTGTCCCGGCTTGCGC
TACCACCCCTGAAGATGCAGAGCTGCTATGAGAAGATTGGAGTTCGCTGCGACTGGACG
GGCTGCAGC

Sequence 1572

CCGAACAANGTGGCCACCCAGGTTTTTAACCCAAGTCTAGTGGTCATCCTATTCTTTCCA
CACCAACATGCCAAAAGCCTTACCTNGAAAGAAAATATAATTTGCAAGAAGCATCACAGT
GCCGGGGTCTATATTCTCGATCAGGTTGNTAATTTTCCCATGGGTTTTTTGACTGATAAA
GNCATTGATCTGCTTCTGAGCCATTTCCAAATTCTGAAAGTTGGTAAGGATGGTTTCGGN
ACTGTAAAAGTTCTTGGCATCTTCC

Sequence 1573

CGCGTCCNGGNCGGAGAAGACAGTAGGGATACTGGATATGGGAGGAGCCTCTCTCCAAAT
TGCTTATGAAGTTCTACCTCAACCTCTGTCTTCTGCAAAGCAGGAAGAAGCTGCCAA
GATCCTGCTGGCTGAGTTCAACCTGGGCTGTGATGTGCAACACACTGAACACGTGTACAG
GGTTTATGTCACAACTTTTCTGGGTTTTCGGAGGCAACTTTGCCCGGCAGCGCTACGAAGA
CCTTGTTCTGAATGAACTCTTAACAAAAACAGATTGCTTGGTCAGAAGACAGGTCTGAG
TCCCGACAATCCATTTCTGGATCCCTGCCTGCCAGTGGGACTCACAGATGTGGT

Sequence 1574

CGCCGTCCNGTTTACTTGGAGTGTCCAAAAGTCAAGCAGTAGAGAAATAAGACAAGCTT
TCAAGANNNTGGCATTGAAGTTACATCCTGATAAAAACCCGAATAACCCAAATGCACATG
GCGATTTTTTAAAAATAAATAGAGCATATGAAGTACTCAAAGATGAAGATCTACGGAAAA
AGTATGACAAATATGGAGAAAAGGGACTTGAGGATAATCAAGGTGGCCNGTATGAAAGCT
GGAAGTATTATCGTTATGATTTTGGTATTTATGATGATGATCCTGAAATCATAACATTGG
AAAGAAGAGAATTTGATGCTGCTGTTAATTCTGGAGAAGTGTGGTTTGTAATTTTTTAC

Sequence 1575

GAGGCGCTCAACCTACCGAGGCGCCACAACTGTCCGGCCTGCTGGGCTTGTCCCTGCG
CTACAACAGCCTCTCGGAGCTGCGCGCCGGCCAGTTCACGGGGTTAATGCAGCTCACGTG
GCTCTATCTGGATCACAATCACATCTGCTCCGTGCAGGGGGACGCCTTTCAGAACTGCG
CCGAGTTAAGGAACTCACGCTGAGTTCCAACCAGATCACCCAACTGCCCAACACCACCTT
CCGGCCCATGCCAACCTGCGCAGCGTGACCTCTCGTACAACAAGCTGCAGGCGCTCGC
GCCCCACCTCTTCCACGGGCTGCGGAAGCTCACACGCTGCATATGCGGGCCAACGCCAT
CCAGTTTGTGCCCCGTGCGCATCTTCCAGGACTGCCGCAGCCTTCAAGTTTCTCGACATCG
GATACAATCAAGC

Sequence 1576

GACCACGCGTCCGCGCACCGCTTCATTGAGGCTGCAAGAGCACACGGGCACCCACGTGCT

TABLE 1
260/467

GGTCCACTGCAAGATGGGCGTCAGCCGCTCAGCGGCCACAGTGCTGGCCTATGCCATGAA
GCAGTACGAATGCAGCCTGGAGCAGGCCCTGCGCCACGTGCAGGAGCTCCGGCCCATCGC
CCGCCCCAACCTGGCTTCTGCGCCAGCTGCAGATCTACCAGGGCATCCTGACGGCCAG
CCGCCAGAGCCATGTCTGGGAGCAGAAAGTGGGTGGGGGTCTCCCAGAGGAGCACCCAG
CCCTGAAGTCTCTACACCATTCACCTCTTCCGCCAGAACCTGAGGG

Sequence 1577

CTACACTCAACTTCACCATCTCCAATCTCCAGTATTCACCAGATATGGGCAAGGGCTCAG
CTACATTCAACTCCACCGAGGGGGTCTTCAGCACCTGCTCAGACCCTTGTTCCAGAAGA
GCAGCATGGGCCCCCTTCTACTTGGGTTGCCAACTGATCTCCCTCAGGCCTGAGAAGGATG
GGCAGCCCACTGGTGTGGACACCACCTGCACCTACCACCCTGACCCTGTGGGCCCCGGGG
TGGACATACAGCAGCTTTACTGGGAGCTGAGTCAGCTGACCCATGGTGTACCCCACTGG
GCTTCTATGTCTGGACAGGGATAGCCTCTTCATCAATGGCTATGCACCCCAAGATTTAT
CAATCCGGGGCGAGTACCAGATAAATTTCCACATTGTCAACTGGAACCTCAGTAATCCAG
ACCCACATNCTCAGAGTACATCACCTGCTGAGGGACATCCAGGACAAGGTCACCACAC
TTTTACAAAGGCAGTCAAACATACATGACACATTCCGCTTCTGCCTGGTCACCAACTTGAC
GATGGACTTCCGTGTTGGTCACTGTCAANGCATTGGTCTTCTTCAATTG

Sequence 1578

GCGGCCGCGGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATTGNNNTNCAAT
AGNTTATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGGAGCTTCACAGC
TTCACCTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATGGCCTACCAAGA
CGATGATGTTTAGCCGGGCGGAGAGGCTGTACCT

Sequence 1579

CTCCCCGCGGTGGCGGCCGCCGGGCGAGGTACCTAACCTACCTTTAAGACTGGGATNTCT
ATTGNTAACAATAGCTAATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGG
AGCTTCACAGCTTCACTTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATG
GCCTACCAAGACGATGATGTTTAGCCGGGCGGAGAGGCTGTACCT

Sequence 1580

CTCCCCGCGGTGGCGGCCGAGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGT
AGGCCNTTNCCTACCAACTAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGA
AGCTCCTTTCTATTACTCATCATGCGATAAATACTATATCCGGTATTAGCTATTGTTTC
CAATAGTTATCCAGTCTTAAAGGTAGGTTAGGTACCTGCCCG

Sequence 1581

TTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTAACCTACCTTTAAGACTGGGATAACTA
TTGTTNAACAATNNCTAATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGG
AGCTTCACAGCTTCACTTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATG
GCCTACCAAGACGATGATGTTTAGCCGGGCGGAGAGGCTGTACCTGCCCG

Sequence 1582

AGGTACAAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGNTAGGCCNTTACCCTACCAA
CTAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGAAGCTCCTTTCTATTACTC
ATCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCAGTCT
TAAAGGTAGGTTAGGTACCTGCCCG

Sequence 1583

CCGCGGTGGCGGCCGAGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTTTTNGGC
CATTACCCTACCAACTAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGAAGCT
CCTTTCTATTACTCATCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAAT
AGTTATCCAGTCTTAAAGGTAGGTTAGGTACCTGCCCG

Sequence 1584

TCTTCGANACGNNTTCGGGCGGCTTTTCCCCGGGCAAGGCTTCTAAATCGGGGGGGCTTC
CTTTAGGGGGTCCGAATTTAAGTGGCNTATAACGGGCANCCTTCGAACCCCCAAAAA
AACTTG

Sequence 1585

TABLE 1
261/467

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTNNGTAGGCCATTACCCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCCGG

Sequence 1586

[illegible]

Sequence 1587

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGTAGGCCATTACCCCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCGG

Sequence 1588

CGGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATTGGAAACAATAGCTAATAC
CGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGGAGCTTCACAGCTTCACTTAAA
AATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATGGCCTACCAAGACGATGATGTT
TAGCCGGGCCGAGAGGCTGTACCT

Sequence 1589

TACCNCGCGTCCGGGGCCCGGATGCTGGGGGCCACCAGGGCCCCGGGATGTGCTGGTCT
TCATGGATGCCCACTGCGAGTGCCACCCAGGTTGGCTGGAGCCCCTCCTCAGCAGAATAG
CTGGTGACAGGAGCCGGGTGGTATCTCCGGTGATAGATGTGATTGACTGGAAGACTTTCC
GGTATTACCCCTCGAAGGACCTGCAGCGTGCGGTGTTGGACTGGAAGCTGGATTTCATT
GGGAACCTTTGCCGGAGCATGTGAGGAAGGCCCTCCAGTCCCCAATAAGCCCCATCAGGA
GCCCTGTGGTGCCCGGAGAGGTGGTGCCATGGACAGACATTACTTCCAAAACACTGGAG
CGTATGACCCTCTTATGTCGCTGCGGGGTGGTGAAAACCTCGAACTGTCTTTCAAGGCCCT
GGCTCTGCGGTGGCTCCGTTGAAATCCTTCCCTGCTCTCGGGTAGGGCACATCTACCGAA
ATCAGGATGCCCCGTCCCCGTTTGACCAGGAGGCCACCTTGAGGAACAAGGTTTCGCATTG
CTGAAGACCTGGCTTGGGGTCA

Sequence 1590

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTGATATCCACATATTTTGGAG
AAAAATTTCCCAAGCCAGGCCGAATGTGGATTGGAATAAAGACATAGGCAGTGTATACCACC
ATAGCAATAATGGTTAGTAAGATGGTGTTAAACATAGATCGCTCCCAGGGCTCTAAACA
GCACAGCAGCTAATGATTTGGTATTGATAGTAGAGCCAGGAGAAATATTCCTTCACACGC
CTCAAATCCATGGTTGGCTCCTTCAAGCTGCAGTAAGTTTGTCTAAGAAAGTCCAGGTC
TGGTTCTTCAGCCTTGCTCCTTC

Sequence 1591

CCCTTTCGAGCGGCCCGCCGGGCAGGTACATTTTGAATATCAATTTCTAAATATTTACCC
AAAAATGTATATTTAAAGTTTTTAAACAACCTCTTTTCAATCTTGAAAAAGTCCCTCATT
TTTTCTTTTAAATCCCATTAAACAATCAATGGTTCTTTTAAATAGAATAAATATTTTTT
TGTCATTAAAGAAGAAATATGGATCTTGGAAAAACATTTGAATATTTTTCTTAAAAAT
AGATTTTGTTTTTTTTAAATTTGTTCCAGAAATAACCTCATCTAATAAAGTAACCTTGA

TABLE 1
262/467

CCACCGTAAGATTCATATAATCTAATCAAAGATCTACCAACTGGTTGTTTTACCCTGGAT
CCAGATTCACCAATTAACCTAAAATTTTTCCTTGTGGATCTAAAATTTTACCGTTATC
AACAGCTTTGACAACCCAAANTTATTGGAAAAATATTTTTTAAGCTTTGAACTTTAAAG
GGTGGGTAACTTGCAATTA

Sequence 1592

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGG
GTTTCCCTGCTATGTTTTGTACACATCATTGCTGGGAGAGTTCAAGTGCTATCCAAGTGA
CTCCCCGGGGAGAGGACAACCTGGAAATTTATGCCTGGTGTCTTCTGGACTCCGACCTAT
GCACCTTTTTCCTTGGATGATTTTAACCTGTCTCCTTTTGTGCAATGAACCATAACCAT
GAGTATATCAGCTTTTCTAATTTTGTGAAGTCCCTCAAGTGAATTATCAAACCTAAGGG
TAGTTTTGGGGACCCCATCACAGAAGAGGTCAAACAGGGGGCAGG

Sequence 1593

CCGCGGTGGCGGCCCGCCCGGGCAGGTCTCTGTCTAGTATACTCAAGGCAGCCTAGTAA
ATTATTATTTATCTATACAATACTGGAAAACTTGTAGACAAAAACATGACTTGAATTGC
TAAAAAAGAGGGAGAATGAAAACCTCCGGACGCGTGGGTCTGAAGCTT
GACCT

Sequence 1594

CCGCGGTGGCGGCCCGCCCGGGCAGGTAGGCTGTCTACACTGACATCATCCAGGGCAAGCT
GGACCAGCGAAACCAGCTGCTGGAAGTGGATTTCTGCATTGGCCGTGACATCCGAAAGAA
GGATATCAATAATATTGTCAAGACCCTGCATGAATGGTGTGATGGCTGTGAAGCAGTTCT
ACTGGGCATNGAGCAGCAAGTTCTGAGAGCCAACCAGTACCTT

Sequence 1595

CCGCGGTGGCGGCCCGCCCGGGCAGGTTTTTTTTTTTTTTTCTTTCTGTTTCTTGGACTA
GATAATCTGAAATCAACTGTCTTCAAGTTTGCAGACTCTTGTGCCAGCTAAAATGTTCTG
TTGAGCCCCAGAAGCTAATTTTCTTTTCAAGTTATTATGATTTTCAAGTTTGAATTTATT
TTTTAATATAATTTCTACCTCTTTTTTATATTCTCCATTTGGTGAGACATTCACATACT
TTCTTCCAGTTTTTTTAGACGTAGTTTCTTGTAGTTCTTTGAGCATATTTAAATAGTT
GATTTAAAGTATTTGTCTAGTTACTCCACCATCTGAGTTTCTCAGGGAAAATTTCTATT
GCCTCCTTTTTCTGTGTGTGGTCCGNCCATACGGACGCGTGGGTCTGAAGACCT

Sequence 1596

ACTTNNNTTTTTTTTTTTTTTTTTTAAAGCGCCCGGCATTTTCTAAATAAAATCATTT
TATTTGGNAAAAGGGTTTTAACAGNTATACCTTTCTAGCTAAAAGAAAAGAAATAGCGGG
ATGTACCT

Sequence 1597

AGGTACGAAGAGAAAGGAATCAAAGCCTACTANCTCAAAAAATTGTCAAATTGCAAATGA
GGACATCTAGAGAGGAAGAAAGGAAAAAGGAACTAAAAACAGAAACAATTAACAGTAA
GTTCTTAAGTATCAATAATTATTTTAAAGTAAATAGATTAAATTATCTAATCAAAGAC
ATTGAATGGCTGAATGGATTAAAAACAAGATCAACTATACATTGCCCATCAGAGATTCA
TTTTAGCTTTAAGGATAAACTGTTGAAAGTGAAGGCTCAAGGCTGGGCATGGTGG
CTCATGTCTATAATTCCAGCACTTTGGGAGGCCAAGGTGGGCAGATAATCTGAGGTCAGG
AGTTTGA

Sequence 1598

CCGGGCAGGTACCACCTGAAGACCCTCACACTCAACTTCACCATCTCCAATCTCCAGTAT
TCACCAGATATGGGCAAGGGCTCAGCTACATTCAACTCCACCGAGGGGGTCTTCAGCAC
CTGCTCAGACCCTTGTTCCAGAAGAGCAGCATGGGCCCTTCTACTTGGGTTGCCAACTG
ATCTCCCTCAGGCTGAGAAGGATGGGGCAGCCACTGGTGTGGACACCACCGGCACCTAC
CACCTGACCCTGTGGGCCCGGGCTGGACATACAGCAGCTTTACTGGGAGCTGAGTCAG
CTGACCCATGGTGTACCCCACTGGGCTTCTATGTCCTGGACAGGGATAGCCTCTTCATC
AATGGCTATGCACCCCAAGATTTAT

Sequence 1599

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACACAGGACCAATGCTGCC

TABLE 1
263/467

CATCCACATGGAATTTACAAACATTCTACAGCGCAAAAGGCTCCAGACTTTGATGTCAGT
GGATGATTCTGTGGAGAGGCTGTATAACATGCTCGTGGAGACGGGGGAGCTGGAGAATAC
TTACATCATTTACACCGCCGACCATGGTTACCATATTGGGCAGTTTGGACTGGTCAAGGG
GAAATCCATGCCATATGACTTTGATATTCGTGTGCCTTTTTTTTATTCGTGGTCCAAGTGT
AGAACCAGGATCAATAGTCCCACAGATCGTTCTCAACATTGACTTGGCCCCACGATCCT
GGATATTGCTGGGCTCGACACACCTCCTGATGTGGACGGCAAGTCTGTCTCAAACCTCT
GGACCCAGAAAAGCCAG

Sequence 1600

TCNCCGCGGTGGCGGCCCGCCGGGCAGGTACGTTCACTGTCTCATATAATCNCAGCCTCC
TGTGTGATAGCTGGTGTCTCATCTCCACTTACAGATGAGGAAACTGAGGATAAGCAGGGTTG
AATAACTTGCTCGAGATCACAGAGCCACGGGTGGNGAAACAGGATACAAACCTGGTTCTG
TTTGACTCTAAGACCATTCAATNTTCTCTGAAACTCAGTATTGCACAGTGTAGAAATGC
AGTTTTTAAGACCTCCCAAAGTGACGTGCTGNGTCACTGCCCATCATTAGCTANATTGAG
TAAATTGCTGCTTAGCCCCANTTGTGTTTGACAGAATCAATAGCCCTTGCTGAGGGGCCAN
CAGCCTACGGACACAGGAGCATGCTTCATGGGCAAGACCACCATGCACACTCAGAGGGGA
AGCCACAAGGCAACCTCCACGCCACTTAAGATTTGTAGGGCTCTGAACACATCACCAGAT
ACAGACCACCTACTTATTTTTNCACTGTAATANCAAAGGCAGGAATCTTTTTNCTGTAG
GGTAAAGTTTGGGGG

Sequence 1601

GGCAGGTACAAGGCCCCAAAGAGGAGGAATTCCTTGTAGAGGAGCTTGTAGATGCTTCCC
CTCCAGCGGAGAAGCAGGCCAGAGAAACCTCCGAAGCGGGCCTCCGCCACTTTGAGAGTG
TATGAAACCGTCATGGTGTCTGGGAGCCTGGGGCAGGAGGTCACAAGAGTTGCCCCAGGG
CTGTCTGTTTAGTTCTCCAGACAACCTCCCTTCCACTCTGGTCTCCACACCCCAGCCTTCA
CCCTGCGTCAAGTGGACAAG

Sequence 1602

AGGTACCACTGGGGACTTCTGAAAGAACNNTACTNGTGTCACTGGAAAAGCTGGCATT
GGGAAATGCTGGTCTCTCTCAGTCCAGGAGTCAAGGAATATGTTGACTCTCTCTTAATTT
TTGTAGTCTCAGAGGAAACAGACATTGATGTGGAACAGTTGTATGCCCCATGGTGGAGG
TGGTATCCATNGGAGCTGTGGCCTTGGTTTTTCTGAGTCAGCTAGGACAGAGGATTGTG
ACCCATGTCCAGAACTGGTGGTTTCCACATTAGTCGCTGCTGTGCTTGTGGAAGGATGCA
TGGCTTCTATAGCTGTGGTGTCTTCATCTGTTGTCACTATCTCATGTGAGGNACCTGCCC
G

Sequence 1603

CCGGGCAGGTACTGTGATATCCACATATTTTTGAGAAAAATTCCCAAGCCAGGCGAATGT
GGATTGGAATAAAGACATAGGCAGTGTATACCACCATAGCAATAATGGTTAGTAAGATGG
TGTTAAACATAGATCGCTCCAGGGCTCTAAACAGCACAGCAGCTAATGATTTGGTATT
GATAGTAGAGCCAGGAGAAATATTCCTTACACGCCTCAAATCCATGGTTGGCTCCTTCA
GGCTGCAGTAAGTTTGTCTTAAGAAAGTCCAGGTCTGGTTCTTCAGCCTTGCTCCTTCGC
GAAATGATCCTGTGTGGGTTAGTTCTCCTCTCTGGGTTGCTGTTTCCTCA

Sequence 1604

AGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACCACTGAAGGCCCTCACACTC
AACTTACCATCTCCAATCTCCAGTATTCACCAGATATGGGCAAGGGCTCAGCTACATTC
AACTCCACCGAGGGGGTCTTCAGCACCTGCTCAGACCTTGTTCAGAAGAGCAGCATG
GGCCCCCTTCTACTTGGGTTGCCAACTGATCTCCCTCAGGCCTGAGAAGGATGGGGCAGCC
ACTGGTGTGGACACCACCTGCACCTACCACCCTGACCCTGTGGGCCCCGGGCTGGACATA
CAGCAGCTTTACTGGGAGCTGAGTCAGCTGACCATGGGTGTCACCCAACTGGGCTTCTA
TTGTCCTGGACAGGGATAGCCTCTTCATCAATGGCTATGCACCCCAAAATTTATCAATCC
GGGGGCGAGGTACCTGCCCCGGGCGGGCCGCTTAAACTAGGNGGGATCCCCCNGGCTTG
CAGGAATTTGATATTCAAGCTTATCGATACCCGTCNACCTTCGAGGGGGGGG

Sequence 1605

CCGGGCAGGTACCACNTGAAGACCCTCACACTCACTTCACCATCTCCAATCTCCAGTAT

TABLE 1
264/467

TCACCAGATATGGGCAAGGGCTCAGCTACATTCAACTCCACCGAGGGGGTCTTCAGCAC
CTGCTCAGACCCCTTGTTCCAGAAGAGCAGCATGGGCCCTTCTACTTGGGTTGCCAACTG
ATCTCCCTCAGGCCTGAGAAGGATGGGGCAGCCACTGGTGTGGACACCACCTGCACCTAC
CACCTGACCCTGTGGGCCCGGGCTGGACATAACAACAGCTTTACTGGGAGCTGAGTCAG
CTGACCCATGGTGTACCCAACTGGGCTTCTATGTCCTGGACAGGGATAGCCTCTTCATC
AATGGCTATGCACCCCAGAATTTATCAATCCGGGGCGAGTACCT

Sequence 1606

CGGCCGCCCGGGCAGGAACNNNNTTTTTTGGGGGGGGGAAAACCNAGACGGAGCCNCGCN
CAANGGCCCAGGCGGGAGTGNAAGGGCACCAGGGGGGGCNCACCACAAANACCGCCGCC
GGGNGAAAGCCACNCCCGGCCNAGCCNCCGGAGNAACGGGGGGAACAGGGGCAGGCCA
TNTTTTTTTTTGNGGGGGGNGNANGGGGNGGANNCCAGGNAAAAANCANGCNGGCCA
GGGGGGGGGGGAACNCCNGACCTNATGANGCACC CGCCNNGGNCNCCCAAANGCGGGGA
NNANAGGGGNGAGCCACCGNGCCNAGCNGACGG

Sequence 1607

CGAGTTACCAGAAGGAGAGATCACCACCATCGAGATCCACCGCACTAACCCGTACATCCA
GTTAGGAATCAGCATCGTTGGCGGCAATGAGACGCCACTGATCAACATCGTNATTCAGGA
AGTNTACCGGGATGGGGCCATCGCCAGAGATGGAAGGCTCCTTGCCGGAGACCAGATTCT
TNAGGTCAACAACTGTGATATCATGCAACGTGTCCCATAACTACGCCCCGGGCTGNCCTTT
CCCAGCCCTGCAGNACCCTGCACCTGACAGNGCTTCGGGAGCGGCNGCTTNGGCAGTCGT
GCAA

Sequence 1608

CGAGCCTTTAGATGGCGTCTCCTCAGGGGGGCCAGATTGCGATCGCGATGAGGCTTNGGA
ACCAGCTCCAGTCAGTGTACAAGATGGACCCGCTACGGAACGAGGAGGAGGTTTCGAGTGA
AGATCAAAGACTTGAATGAACACATTTGTTTGCTGCCTATGCGCCGGCTACTTNGNGGAT
GCCACCACCATCACAGAGTGTCTTCATACTTTCTGCAAGAGTTGTATTGTGAAGTACCTN
CAAAGTCAAGTACTGCCCCATGTGCAACATTAAGATCCACGAGACACAGCCACTGCTC
AACCTNAACTGGACCGGGTCATGCGNGGACATCGTGTATAAGCTGGTGCCTGGCTT

Sequence 1609

GCGTCCGAGATCCCCCAGGAGAATGGTAGACACAGATGAGGAAATTGTGGAGATGGGCAC
AAACCGCAAGGTGAAGAAAACGAACAAACACCGAGTTGATACGGATAGTCCCCGTTCCCC
TGAGGGCCGACCCCGTGAATCOCGATGAGCGTCCAGTTGCGCCGGGCATCCTGGGCCTC
CCAGCGTCTTTCCCGGAGGTTTCATCGCCGACGGCGGAAAGCGCTCTCGGTTCCGCTTTC
CGGCCCCAGCCTCCCGGGCGCCCTCGCGCGCGGCTAACGCTGGTCTCGGCCGGGCGCG
CTGACGTCATCGTGCCTCAGAGTGAGCCCGGATGGGGCGGCGGGCTTCGGGAGCGCCCGG
GCTGATCCGAGCCGAGCGGGCCGTATCTNCTTGTGCGCGCCGCTGATTCCCGGCTCTGCG
GAGGCTCTAGGCAGCCGCGCAGCTTNCGTGTTTGTGCGCCCGCACTGCGATTACAAC
CCTGAAGAATCTTCCTATCCCTAT

Sequence 1610

CGCGTCCGGCGGGCGGGCTGAGGAGGGCCCGGCTGCGAGAGCCTCAGTGGGAGCCGGC
TCAGCCCTCGGCCACCATGTGCGCGCCGTGCGAGGAGGAGGAGTACTGCGCGGCTGGTGA
TGGAGGCGCAGCCGAGTGGCTGCGCGCCNAGGTGAAGCGGNTGTCCACGAGCTGGCCG
AGACCACNCGTGAGAAGATCCAGGCGGCCGAGTACGGGCTGCGGGTGCTCGAGGAGAAGC
ACCAGCTCAAGCTGCAGTTCGAGGAGCTCGAGGTGGAATATGAGGCTATCCGACGCGAGA
TGGAGCANCTCAAGGAGGCCTTTGACAAGCACACACAAACCACAAGAAGGTGG

Sequence 1611

CGCGTTCGAGTCTGGAGACGACGTTNCGAAATGGCACCTCGCAAAGGGGAACGGAAAAGA
AGGAATGAACAGGTCATCAGCCTTGACCTCAGGTGGCTGAAGGAGAGAATGTATTTGGN
GTCTGCCACATCTTTGCATTCTTCAATGATACCTTTGTCCATGTTANTGAACCTTTCTGGC
NAGTGAGTACTTCAGAAAGGCATNAAACANGCCTCAAAGGGAC

Sequence 1612

CCCCGCGTCCGCCACGCGTCCGGGCTCGGCTGCACCGGGGGGATCGCGCCTGGCAGACC

TABLE 1
265/467

CCAGACCGAGCAGAGGGCGACCCAGCGCGCTCGGGAGAGGCTGCACCGCCGCGCCCCCGCC
TAGCCCTTCCGGATCCTGCGCGCANAAAAGTTTCATTTGCTGTATGCCATCCTCGAGAGC
TGTCTAGGTTAACCGTTCGCACTCTGTGTATATAACCTCGACAGTCTTGGCACCTAACGT
GCTGTGCGTAGCTGCTCCTTTGGTTGAATCCCAGGCCCTTGTGGGGCACAAGGTGGCA
GGATGTCTCAGTGGTACGAACTTCAGCAGCTTGACTCAAAATTCCTGGAGCAGGTTCCACC
AGCTTTATGATGACAGTTTTNCATGGAAATNNGACAGTACCTGGCACAGTGGTTAGAAA
AGC

Sequence 1613

GTTNAGTNGAAGTTCTCTACCATTTGAATCAGTGAAGTAGAAAAGATCTGATTTGGCCTGGG
ACCAAGTGTCAAGTTGGTTTGGTCTTTATTAATAATCACAATATTCGAAAACAAAAAA
CCTAGGAGATAAATGTAGAGGTATTGACTTTTCGTATCTTTATCTTCACACTGAAACAA
GAGCTATCCTATTTGATTATTAAGTGAGCTATGTGTTAAGTGCCAGGACATTTCTAGCT
TTTGTGAGAATGTGTCTACATATGAGTATAATAAACCCACATGTATACACAATTGTCTCT
TATGTACTCCTACCTGGCAGGAGTCTTTG

Sequence 1614

CGCGCCGGTGGTGCGATCTCGGCTACTGCAACTTCAGCCTCCTGGATTGAGGCAACACTC
CTGCCTCAGCCTCCACGTGGCTGGGATTACAGGTGCCTGCCCCCATGGCTAATTTTTTG
TATTTTTGTAGAGATGGGGTTTCACCATGTTGGCTGGGCTGGTCTCACTCTCCTGACCT
CAAGCAATCTGCCTGTCTCAGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCC
CCCAGCCTGAGCCTTTTTTTTTTTCTAATGCATCCAAGGTTAAGGGGAAGACGCAATAA
CAGGACTATTCTAAAAGGAAACCTGTTTGAAGCTCTGTGAGATCAAGTCATCAGTCTCAGT
ATTNCACAGGCACACCTTAATTTTCATTGGTAAAAGATATATATTTTTGNCATTTTTGN
GCTTTTGGGGGCCTATTTTGNGCTTTTTTACCTTTAATGNAAGAAGANCTTAATACCAA
GTGGATTTTTTTACCA

Sequence 1615

TCGCCNCGCGTCCGTAGAACTCACACTAGACACACGCGAGTAGTCATACGTCTTCACACG
GTTTAGGAGCTACTGGACCAACATTCCTGTTTTTGCTTTTGTTTTTTAAATAATTCTAG
TCTGGAGCTAACTGTGGAGCAGCCAAATAGTAGCTGGCATGTTGATTCAAACCATGGGCT
GAATTTGCTCATAGGCTGTGCATCAGACAAAAGCTTGAATATTTGTGTTGTATGCTTGT
CAACCCAGCGTGTGTGAGCATTTTTGTGGCTGTACAGAAAGTACACTTTTAAATTGT
CTCTTGATCACTAAAATTTTTTAAATGAGCATAACAACGAAAGGCATCCAGCTGACT
TTTTGATTCCAAGATTATTGATTGGATTGACTTTTTTGCATTAAATTTTTCCAGCAAAA
TAAATCATATGGCGAGTCAGGGAATAAAAAAGTCAAAAAGGAAACAAATAGAAGCTTTTT
TTTTTAAAAA

Sequence 1616

GGNCGAGCGCGCCTTGCGGGGGCGGTATCCCGGCGCCCTAAGACCCACGACCNCNNGCA
CCGGCCGNTGCTGCNAGACCCCGGCCGNGTCGGTCCGATGTCGCCCCCGGNCCCGGCG
GAAACGCCTCCCTNCTGGCCAGGCTGTCNAGCACCCGCTT

Sequence 1617

TCGCCACGCGTCCGTTNAGATGCAGAAATGAAAAAAAACACCTTTGTTTTATAAATATC
AAAGTACATGCTTAAAGCCAAGTTTTATCTAGTTTATTCTAGTACTTAGCTTGCCTGGA
ATAGCTAATAAATTATTCATGTATGTGCTTTTGAAAAATCCAGAGCCCTATTTTTACACAC
TTGTGTGAAGTTGGCAAACATTTTGAAAAATGGAAAAAAGTTTCTAATAATTGGGAACAA
TTACATTAATTAATATTTTGTAATAATTGAAGCTTTTAGCCCTATGTCAATTTGTAGAT
TAAATAAATTAATTATAGGAAAGGAAGATAACAGTGAGAAACCAAACATTAC

Sequence 1618

CACGCGTCCGCCACGCGTCCGGCGCGGGCGGGAGCGGGCGGNGCGAGCGGGAGGCGGGCGG
CTCACAACCTGAAGCGCTGNGGCATGGNGCGCGCCTGCCTCCAGGCCGANNNGTACCTNAT
GTTTCGCTTCAACCTGCTNTTCTGGCTGGGAGGNGTGTGNGGGCTGGNTGTCTGGCNTC
CTGGCTTGGGC

Sequence 1619

TABLE 1
266/467

TCGCCACGCGTCCGGACCTGGATGTGAGGGTGAANGGGCTGTGCTGCTGGGAGCCACATT
CCTCATTGACTACATGTTCTTTGAGAAGCGAGGAGGCAGCTGGGCCCTCTGCCATCACCA
GTTAGAGGCCACCATGGTGTGAGGAGACCATCACCTCGACCAGAACTCCAGATGGTCACC
TGCCCTGGCCCCCTCCTCTGGGCAGCCCCCTTTCCTCCATGTACACTGCAGGGGACAGAAGG
GGGGCCCCATCCCTACCCTACTCCCTGGCCGCCTGCCCCCTGTGGTTCCCAAGGAAGGGGG
TATTGTATTGAGAGCCGCTCTCCTGCTACCTCCCACCACTGTCCAACAGTCCCTCGGCAC
ACAGGCATATTAAGCTTTCACACTTTTCCCATGCACTTTTTTCCACCCC

Sequence 1620

GGAGTCGACCNCGCGTCCGGGGGCTTGCTGGGATCATGGCGGAGAATCACTGCGAGCTCC
TGTCGCCGGCCCCGGGGCGGCATCGGGGCGGGGCTGGGGGGCGGCCTGTGCCGCCGCTGCA
CGCTCGGGCTCGGCGCCCTGGCCCAGCGCCCTGGCAGCGTGTCCAAGTGGGTCCGACTCA
ACGTCGGCGGCACCTACTTCTCACCACCTCGGCAGACCCTGTGCCGGGACCCGAAATCCT
TCCTGTACCGCTTATGCCAGGCCGATCCCGACCTGGACTCAGACAAGGATGAAACAGGCG
CCTATTTAATCGACAGAGACCCACCTACTTTGGGCCTGTGCTGAACTACCTGAGACACG
GCAAGCTGGTGATTAACAAAGACCTCNCGGAGGAAGGG

Sequence 1621

GTCGCCCCGCGTCCGGGGCCCCGCGGGCCTCGCCTCCGCCCTCCGCCACCTCGAGCTGCGG
TAGCAGCGACTCATGAGAGCGCGGCCGAGGACAGATTTGATAATGGGCTGCATTAAG
TAAAGAAAACAAAAGTCCAGCCATTAAATACAGACCTGAAAATACTCCAGAGCCTGTGAG
TACAAGTGTGAGCCATTATGGAGCAGAACCCACTACAGTGTACCATGTCCGTCATCTTC
AGCAAAGGGAACAGCAGTTAATTTACAGCAGTCTTTCCATGACACCATTTGGAGGATCCTC
AGGGGTAACGCCTTTTGGGAGGTGCATCTTCCTCATTTTCAGTGGTGCCAAGTTCATATC
CTGCTGGTTTAAACAGGGNNGNGGTACTATATTTGNGGCCTTATATGATTATGAAGCTAG
AACTCCAGAAAGACCTTTTCAATTAAGAAGGGTGAAAGATTTCAAATAATTAACAATACNG
AAGGAGATTGGTGG

Sequence 1622

TTCGGGAGTCGCCCCGCGTCCGCTTTTAGAAAAGGCCAATATACCTATCACACTTTGGAA
GTAAAAATACACACTTTTCGTGTGTACCTAAAAAAAATCGTTGAAAATCAAGGCCAAAG
GTAGTGCAATTTTTTCAATTAAGATTTAAAAAAGGGAATGATAGTCTTTGAAAGAAAAC
AGTAGGCATCCAGCACTGGACAAAACATGGGTATCAAAGATGAATAATCTTTGGAGATTC
TGGCAGTGTTTTCCAGAACAAAGTCAAGTGGAAAGTGGAGAAATTATCTGTATAATTTTG
GACACATACAATGGCAGTTTATCAAAGGGTTTTGTTCTGTGGCCTGAATTTACTGGGGTC
CTACCTACACATTGAACATGTTTGGCTGGCTTTTTTTTTTTTTTCAACTTGCCAGTTT
CACTTTACATGGTTAGTAATAAATGGTTTCCACGGGGTGAGTTGGGATAAAATTNTTAA
AACATNTTAAATTCCA

Sequence 1623

GGAGTCGACCNCGCGTCCGAGCCGGGCGGGGCGATGTGGAGCGCGGGCCGCGGCGGGGC
TGCTGGCCGGTGCTGTTGGGGCTGCTGCTGGCGCTGTTAGTGCCGGGCGGTGGTGCCGC
CAAGACCGGTGCGGAGCTCGTGACCTGCGGGTCCGCTGCTGAAGCTGCTCAATACGCACCA
CCGCGTGCGGCTGCACTCGCACGACATCAAATACGGATCCGGCAGCGGCCAGCAATCGGT
GACCGGCGTAGAGGCCGTGCGACGACGCCAATAGCTACTGGCGGATCCGCGGCGGCTCGG
AGGGCCGGGTGCCCGCGCGGGTCC

Sequence 1624

CGCGTCCGGGGCAGCCGCGCCCGCGGAGTTTTCCGCCCGGCGCTGACGGCTGCTGCGCCC
GCGGCTCCCCAGTGCCCCGAGTGCCCCGCGGGCCCCGCGAGCGGGAGTGGGACCCAGCCC
CTAGGCAGAACCCAGGCGCCGCGCCCGGACGCCCGCGGAGAGGCCACTCCCGCCCACG
TCCCATTTGCCCCCTCGCGTCCGGAGTCCCCCTGGCCAGATCTAACCATGAGCTACCCGT
GCTATCCCCCGCCCCAGGTGGCTACCCACAGCTGCACCAGGTGGGTGGTCCCTGGGGG
AGGTGCTGCCTACCCTCCTCCGCCAGCATGCCCCCATCGGGCTGGATTAACGTGGCCA
CCTATGCGGGGGCAAGTTCAACCAGGGACTATCTTCTCGGGAATGGCGGCCAACATTGTC
TGGGGACATTTGGAGGGAGCCAACATGCCCAAACCTGGACCCTGGGGCCCCCTGGGGGCTG

TABLE 1
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Sequence 1625

CACGCGTCCGGCGCCGCTCCCGCATCTGCACCCGCAGCCCGGCGGCCTCCCGGCGGGAGC
GAGCAGATCCAGTCCGGCCCGCAGCGCAACTCGGTCCAGTCGGGGCGGCGGCTGCGGGCG
CAGAGCGGAGATGCAGCGGCTTGGGGCCACCCTGCTGTGCCTGCTGCTGGCGGCGGCGGT
CCCCACGGCCCCCGCGCCGCTCCGACGGCGACCTCGGCTCCAGTCAAGCCCGGCCCCGGC
TCTCAGCTACCCGCAGGAGGAGGCCACCCTCAATGAAGATGTTCCGCGAGGTTGAGGAAC
TGATGGAGGACACGCAGCACAAATTGCGCGCGCGGTGGAAGAGATGGAGGCAGAAGAAGC
TGCTGCTAAAGCATCATCAAGAAGTGGAACCTGGCAAACCTTAC

Sequence 1626

CCACGCGTCCGGCCGGGGGGTGCCCCCGGGACGTAGCGCCCGGAGAGGAAGCGGCAAAG
GGGACCATGCGGCGCCTGACTCGTCGGCTGGTTCTGCCAGTCTTCGGGGTGCTCTGGATC
ACGGTGCTGCTGTTCTTCTGGGTAACCAAGAGGAAGTTGGAGGTGCCCCAGGGGACCTGA
AGTGCAGACCCCTAAGCCTTCGGACGCTGACTGGGACGACCTGTGGGACCAAGTTTATGA
GCGGCGGTATCTGAATGCCAAAAAGTGGCGCGTTGGTGACGACCCCTATAAAGCTGTATG
CTTTCAACCAGCGGGAGAGTGAGGCGGGATCTCCAGCAATCGGGCCATCCCGGACACTCG
CCATCTGGAGATGCACATGGCTTGGTGTATTGGACGGGACCTTCACCCACTT

Sequence 1627

GCCACGCGTCCGCCGCCCGCTTGCCCGTCGGTCGCTAGCTCGCTCGGTGCGCGTCGTCCC
GCTCCATGGCGCTCTTCGTGCGGCTGCTGGCTCTCGCCCTGGCTCTGGCCCTGGGCCCCG
CCGCGACCCTGGCGGGTCCCGCCAAGTCGCCCTACCAGCTGGTGTGCTGCAGCACAAGCAGG
CTCCGGGGCCGCCAGCACGGCCCCAACGTGTGTGCTGTGCAGAAGGTTATTGGCACTAAT
AGGAAGTACTTCACCAACTGCAAGCAAGTGGTACCAAAGGAAAATCTGTGGCAAATCAAC
AGTCATCAGCTACGAGTGCTGTCTGGATATGAAAAGGTCCCTGGGAAGGANGGGGGCTT
GTCCAAGCAAGCCCTACCACTCTCAAACCTTTACGAGACCCTGGGNAGTCGNTTGGATCC
ACCACCACTCAAGCTGTACACCGACCGCACGGAGAAGCTGAGGCTGAATGGGGAGGGGCC

Sequence 1628

CCTAAGGGCAACAAGGGCGGTCTTGCCAGCCGGGCTTTGAGGGAGAGCAGGGGACCAGA
GGTGCACAGGGCCCCAGCTGGTCTGCTGGTCTCCAGGGCTGATAGGAGAACAAGGCATT
TCTGGACCTCGGGGAAGCGGAGGTGCCGTGGTGTCTCTGGAGAACGAGGCAGAACC CGG
TCCACTGGGAAGAAAGGGTGAGCCCGGAGAGCCAGGACCAAAAGGAGGAATCGGCAACCG
GGGCCCTCGTGGGGAGACGGGAGATGACGGGAGAGACCGGAGTTGGCAGTGAAGGACGCA
GAGGCAAAAAGGAGAAAGAGGATTCCCTGGATACCCAGGACCAAGGGTAACCCAGGTN
AACCTGGGCTAAATGGAACAACAGGGACCCAAAGGCATTNAGAGGCCCGAAGGGGA

Sequence 1629

AGTCGCCCCGCGTCCGCTGTGCCTGAAGGAGACTGGTTTTGTCCAGAATGTCGACCAAAG
CAACGTTCTAGAAGACTCTCCTCTAGACAGAGACCATCCTTGGAAGTGATGAAGATGTG
GAAGACAGTATGGGAGGTGAGGATGATGAAGTTGATGGCGATGAAGAAGAAGGTCAAAGT
GAGGAGGAAGAGTATGAGGTAGAACAAGATGAAGATGACTCTCAAGAAGAGGAAGAAGTC
AGCCTACCCAAACGAGGAAGACCACAAGTTAGATTGCCAGTTAAACAAGAGGGAAACTT
AGCTCTTCTTTCTCAAGTCGTGGCCAACAACAAGGAACCTGGAAGATACCTTCAAGGAG
TCAGCAGAGCACACCCAAAACAACCTGTTTTCTTCTAAAACCTGGGTAGAAGCCTAAGAAAG
ATAAACTCTGCTCCTCCTACAGAAACAAAATCTT

Sequence 1630

TNCGGGCCTGGTGAGCACCGCCGAGGCGCGGGCCAGCTCTTCGAGGTTGTGCGCGGGAGT
GGCACGGCGGGCCGGGCCGAGCGAGGGGCTAACTTCAGCGGTGGCACCGGGATCGGTTGC
CTTGAGCCTGAAATCATGACCACCCAGGAAAAGAGAACTTTCGCTGAAAAGTTACAAG
AACAAATCTCTGAATCCCGATGAGATGCGCAGGAGGAGGGAGGAAGAAGGACTGCAGTTA
CGAAAGCAGAAAAGAGAAGAGCAGTTATTCAAGCGGAGAAATGTTGCTACAGCAGAAAGAA
GAAACAGAAGAAGAAGTTATGTGAGATGGAGGCTTTCATGAGGCTCAAGATTAATAACAT
GGGAGATGGCCCAGGGTGGGTGTCATCACTTCTGACATGATTGAAATGATATTTCCAAA

TABLE 1
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AGCCCAGAGCAACAAGCTTTCAGCAACACAAGAAATTCAGGAAGCTGCTTTCAAAAAGAA
CCTAA

Sequence 1631

CGGAGTCACCACGCGTCCGGGGCTGCCAAGGGAGGAGGAAGATGGCGGGCGGGGGCGAGGT
GAGGTGTTGGCAGTGGAAAGGGGTTCCGGGCTCGGGGGGCGGGGGACGCGGAGCGATGGC
CCGCGCCGCGCCGAGGGGGCGGATAAAAAGCCGTCGCGCTGCGGGAGTGGGCGGGAGGGAG
AGGGGGTGTCCGAGGGGCCACAAGAGTATGACGGGGCTGTACGAGCTGGTGTGGCGGGTGC
TGCACGCGCTGCTCTGTCTGCACCGCACGCTCACCTCCTGGCTCCGCGTTCGGTTCGGCA
CCTGGAACCTGGGATCTGGCGGCGCTGCTGCCGCGCCGCTCTGCGCGTCTAGCGCCGC
TCGGCTTACGCTCCGCAAGCCCCCGGCAGTCGGCAGGAACCGCGTCAACACCGGCACC
CGCGCGGGGGGGTCTGCTGCTGG

Sequence 1632

CGTCCGTTTGTAAATATTTTTTCTCTCTTGAACAAAACCTGAGATAATTTAGAAAACA
GGTGCTTAATTGCAATAAAATTACTATGAAGTATATTAATAATCACGACATTGTAAATC
TCACTTTAGATCATCAAGAAAACCATTTGTTACTATCTCCTTTGAGCTTAGGAAAATGTA
CAAGAGAACAATTAATAATTGAAAAATTGATTTCACTTAGAAAACTTCTAGGAACAGGG
TGAACCACTGATTTTAATTTGCCTAATTATCTTATGACAAGTATCAAATTAAGATGACAC
TTAAAGGATCCTTAGCATTTAATTAATGATGGAGAAAGAGTGCTCAATAGGACAGTTCC
CCAGTTAAGGGGTAATGGAGATGCCATTTTCAGGAGGACCATTCTAAGAAGATATTTTT
GGATTCAATTAATAACATTTAATAAAAAGCCCTTCTTCAAGATTGGGAAC

Sequence 1633

CGCGTCCGCGCGCCTGGTGCACGCGGCGCACCGAGGCCTCCCGCAACGCGCCGACAAGG
AGCGGGCGGCGGGCGGCGGCGCGCCGCGCAGCAGCGAGGACGACGCGCAGAGCCGCGCGACG
AGCAGGACGACGACGACAAGGGCGACTCCAAGGAAACGCGGCTGACCCTGATGGAGGAAG
TGCTCCTGCTGGGCCTCAAGGACCGCGAGGGTTACACATCATTTTGGAATGACTGTATAT
CATCTGGATTACGTGGCTGTATGTTAATTGAATTAGCATTGAGAGGAAGGTTACAACCTAG
AGGCTTGTGGAATGAGACGTAAAAGTCTATTAACAAG

Sequence 1634

CCCCGCGTCCCGGTTGGCCGGGCGGAGGTCTTCGCTGAGGCCCGGGGCGGGGTGGCGCCA
CCCCTGATTGCGGTGCCACGGAAGTCTGCTGCTGGGCGGAGAGGACAGATTTTGCAAAGC
GGAGGCTTGCGACGGGTCTGCAGGGGGACAGTGAGGAAAGGGCCCGCCTCGTNTCCGCT
CCTGGGGGACCCGAGAAATAAGAATCAAACCTCCACAATGACAACCTATTTGGAATTCAT
TCAACAAAAATGAAGAACGAGAATGGGAGTCCCGATTAGT

Sequence 1635

CCACGCGTCCGGGCGGGGCCATCCAAGCAACGCTGAAGGCCTTTTCCAGCAGCTGGGAGC
TCCCGGATTGCGTGCCACAGCTGAGGGGCTCTGTGATGGCTGAGCTCTCTTATGTCCTA
TACTCACATCAGACATGTGATCATAGTCCCAGAGACAGAGTTGAGGTCTCGAAGAAAAGA
TCCATGATCGGCTTTCTCCTGGGGCCCCCTCCAATTGTTTACTGTTAGAAAGTGGGAATGG
GGTCCCTAGCAGACTTGCTGGAAGGAGCCTATTATAGAGGGGTTGGTTTATGTTGGGGA
GAATTGGGCCTGAATTTCTCCACAGAAATAAGTTGCCATCCTCAGGTTGGCCCTTTCCCA
AGCACTGTAAGTGAGTGGGGTCAGGCAAAGCCCCAAATGAGGGGTTGGTTTAGATTCTGA
CAGTTTGCCAGCCAGGCCCCACCTCAGCGTCTGTGCAACAAACAAAGNTNGGGNGGGTTT
N

Sequence 1636

CCNCGCGTCCGCGGACGCGTGGGCGGACGCGTGGGCTTCTGCAGCAAGCTCAGGAGAGCT
GCTGTCTTCCCTCCCGCCCACCAGCAACGACCCCTCTGACCCTGCCACAACCTACTGCAAA
GGCAGACGCTGCCTCCTCACTCACTGTGGATGTGACGCCCCCACTGCCAAGGCCCCAC
CACCGTTGAGGACAGAGTCGGCGACTCCACCCAGTCAGCGAGAAGCCTGTTTCTGCGGC
TGTGGATGCCAATGCTTCTGAGTCACCTTAACCTTGAACCATTCTTTGGAATTGGCGTGG
TATATTTAACCACGGGAGGCGTGTCTGGAAACGCAAACTATCATTATTTCACTAGGT
TTGTACCGTATCTGTAGGCATTCTGTAAATAATTCCAAGGGGGAAAACCTAAACNNGGAC

TABLE 1
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GTGGGGTTGTATCCTGCCAGGTTTGAGTGGGGGCTCACACCTAGGGTGAGAAGTCAGAAA
GCGCTTGATTTTTAAACAACCAAAAAGAATTGAAAGGGTG

Sequence 1637

CGTCCNATAGGCTTGCACACTTTTCTAACTACATGTTTAAGTGGCAGAGTCCAGGCTGTC
GAGTCACGGTTGGGTTTGAATCTGACTCCACCAGTAACTTTGGTTGGAAAAATCACTTA
TCCTCTTTAAGCTTGATTTTATTTATTTTATTTATGTAAGAGTGAGACAGTAGTAGCTT
AATAGGGTTGCTTTTAAATTAGAGTGAACATGAGGCATTTATTCGGTGCCAGACAGATAA
CTGCCTATAACAGGATGTGATCAGCACAAAGTAACAGAAAATTAGCCTGGACGGTGGCTTA
AGCAATGGGGAATGTTTATCTCACATAGCAAAAAGGTCTGTAAATAGGATGGTTTTAGAG
TTGGGGTGGGGAAGCCAAAATGTCATCAGGATTTCTTGGAACCCGT

Sequence 1638

CGCGTCCGGATTAATACAACCTCTTAAAAATATAGTCAATAGGTTACTAAGATATTGCTT
AGCGTTAAGTTTTTAACCGTAATTTTAATAGCTTAAGATTTTAAGAGAAAATATGAAGAC
TTAGAAGAGTAGCATGAGGAAGGGGAAGAAAAGAAGGGGAAGAAGATCAAAGAAGGAAAG
AAGAAGGGGAAGAAAAGAAGGGGAAGAAGATCAAACCCACCATGCCCCAGGCTCAGCAG
GGAGCTGCTGGATGAGAAAGGGCCTGAAGTCTTGCAGGACTCACTGGATAGAAGTTATTC
AACTCCTTCAGGTTGTCTTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT
CGTATTGGAGCAACAGCCGTGTTGGCTTGGCTGTTGACATGGATGAAATTG

Sequence 1639

CGCGTCCGGCTCCCCGCACCCCTCGCACTCNCTCTGGCCGNGCCAGGGCGGCCTTCAGC
CCAACCTTGCCCAGCCCCACGGGCGCCACGGAACCCGCTNGATCTCGCCGCCAACTGGTA
GACA

Sequence 1640

GTCGCCACGCTCCGGCGGCCGGGGCGGGCAGCCGGGAAGCGGGTGGGGTGGTGTGTTA
CCCAGTAGCTNCTGGGACATCGNTCGGGTACGCTCCACGCGCTCNCAGCCACTGCTGTGG
TCGCCGGTC

Sequence 1641

CGTCCGCTCCTCCCGCCTGAGGCGAGTCTGGGCTCAGCCTAGAGCTCTCCGGCGGCGGGC
CAGCTTCAGGGCAGCGCGGGCTGCAGCGGCGGCGGGCTTAGGGCTGTGTAGGGCGAGGC
CTCCCCCTTCTCCTCGCCATCCTACTCCTCCTCCTCGTCATCCTCCCCCTTCGTCTCTC
CTCGCCTTCTCCTCCTCGTCAGGCTCGACCCAGCTGTGAGCGGCAAAGATGGGCGGCGC
CCAGGCCGCGCCTGCCAGGCTGTCGGGGCGTCTGTTGCCGGCGCCCATCAAGACCTG
GAGGCCCTGCGCGCGCTCACGGCGCTCTTCAAAGGAGCAGCGGAACCGAGAAACAGCACC
CAGGACTATCTTCAAAGGAGTTCTGGATATCCTAAAGAAATCTTCTATGCTGTTGAGC
TTGCCTGCANGAGATCCATCCCAAGTGGAACCT

Sequence 1642

ACATTTATCATGGATGCTGACCGGGAGAAAGAAAGAAAGAAACGGGAGGAGCGGGAGCGT
AAGCGGCGGAAGGAGGAGGAGGTGCAACAGCCAAAGTTGGCAGAGGAGAGACGGCGGCAG
AATTTACAGGAGGAAAAGGAAAGGAAGTTGGAATGCCTGCCCCCTGAACCTTCCCCTGAT
GACCCTGAAAGTGTCAAGATCATCTTCAAATTACCTAATGATTCTCGAGTAGAGAGACGA
TTCCACTTTTACAGTCTCTAACAGTAATCCACGACTTCTTATTCTCCTTGAAGGAAAGC
CCAGAAAAGTTTCAAGATTGAAGCCAATTTTCCAGGCGAGTGTGCCCTGCATCCCCTC
AGAGGAGTGGCCCAATCCCCCTACGCTACAGGAGGCGGACTTAGCCACCAGAAAGTCTT
TTTGTTGAGGACCTAACTGACGAATGACATTTTTTTCTTTCTGTCCCCCTCCTACCCAGT
CCCTAAAGAAATGGGGNAAAAAGGAAACAACAGCAGTCNTAAAAA

Sequence 1643

CGCGTCCGGAGGGGCTAAGAAGGTTGTCCTTGCTAATGCTCTGATCTGTAAGTGAATAG
GGCAGAACAGTTCAGCCTTGAGGTTAGAATTTAGCAGGAGCTATCCTGACTTAATATCCA
GTTGTGGGGTTTGCAAAACAAACAGCTGTATGTAATCATTGCCACTAGTTCATCTAGA
ACTCCTTTCTAGTTTGTATTTTAAAATGTTTATACATAAAACCACCAAAATACATAGC
TTCGACAAGATGGAAGTTTATTTCTCTCTCCATAACAGTGCAGTGATAGTCAGCTGGTC

TABLE 1
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CAGGCCAGGCAAGGGGCTGGTCCATGATGTCATCAGGCACCCAGGTTCTACTGGCTTTG
CATGTGGCCACAGTTAGCAACAAANGGAGGCTGTAAATTT

Sequence 1644

CGCCACGCGTCCGGTGATGCGGACCCCGGGCGGGGCGCAGGGCGCGGGGCTCCGGCGCCGCC
GCTGCGTCTCTCCCGGCCGCGGGGCGAGCCGCTGCAGAGGGAGCGTCGCGCCGGGGCGGAG
TGCGGGCTTGCGCGGCAAGTGCGCGCCGAGGTCACGAAATGGATTGGAGTGAACCGGAGA
CCCCGAAAACGGAAGCGCAGGGAGAAGGAAGAGGTGTTTGAAAAGCTTCTTCCAGACCAG
CTGGTCTTGCTTCTGGAGCATCTCTGGAGCAGAAGACTCTGAGCCCCGAACCTCTGCAA
AGCCTCCAGAGGACATACCACCTCCAGGATCAGGATGCAAGAGGTTGCCATCGGTGGTG
TGAACCTCATTGTTAAGCACAAGTTCACGAAAGCCTACAAAAGTGTGGAGAGGTTCTTCA
GGGAGGATCAGGCCATGGGGTGTGTACCTCTACGGGGAGCTGATGGTTGAGTGAGGACCC
CAGAC

Sequence 1645

TCGCCACGCGTCCGGGACATCGAGTNCGGGCTGGCTACGAACTCCTCGGGGGCGAAGGTG
GCGGAGAGGGATGGGTTCCAGGACGTCTGGCGCCCGGGGAAGGCTCGGCGGGACGGATT
TGCGGTGCGCAGCCAGTGCCGTTCTGCTCCCTCAGGTGCTTGGCGTGATGATCGGGGCCGGA
GTGGCGGTGGTGGTCACGGCCGTGCTCATCCTCCTGGTGGTGCGGAGGCTGCGAGTGCCA
AAAACCCCGAGCCCCGGATGGCCCCCGGTATCGGTTCCGGAAGAGGGACAAAGTGCTCTTC
TATGGCCGGAAGATTATGCGGAAGGTGTCACAATCCACCTCCTCCCTCGTGGATACCTCT
GTCTCGCCACCTCCCGGCCACGCATGAGGAAGAACTGAAGATGCTCAACATTGCCAAG
AAGATCCTGCGCATCCAGAAAGAGACGCCACGCTGCAGCGGAAGGAGCCCCCGCCGCA
GTGCTAGGAAGCTGAC

Sequence 1646

TCCGCCAAGTCTCGCATGATGGACTCAACACCTTCCGCGACGAGGGGCCGGGTTCTGCG
GCGCCTGCCAAACCGCATACCCAGCCTGCGGATGCTCCGGAGCTTCTTCAACGACGGGTC
CTTGATAGCTGGGGCACCTCTGAAGATGCTGACGCTCCTTCTAAGCGACACTCAACCTC
TGACCTCTCAGATGCGACCTTCAGCGATATCAGGAGAGAAGGCTGGTTGTATTATAAGCA
GATTCTACCAAGAAGGGGAAGGCTGAGGACCGGGATGACATGCTGGGCTGGATCAGAGC
GATCCGGGAGAACAGCAGGGCCGAGGGCGAGGACCCCGGCTGTGCCAACCAAGCTCTGAT
CAGCAAGAAGCTTAATGATTATCGCAAAGTGAGCCATAGCTCTGGGCCAAAGCTGATTC
CTCCCCAAAGGCTCTCGCGGCTGGGGGGCCTCAAGTCTGAGTTCCTCAAGCAGAGTG
GGCCACGTGGCCTCANGACTCAAGACCTGCCCGCAGGGAGCAAGGATGACAGTGCTGCAG
CCCCAAAACCCC

Sequence 1647

GGTGTGCCCCGCGTCCGGTTTCTTCTAATTTATATTTCCGATACATANGTGTAGAACA
GGAATTTGCAGAAGCCATTTAAGTTATCTTTGAGGTAANGCTCTGATTTAGCATTTATT
CTGATAAAATCTAATACATCATGGGATATATATAAGCAACTTAATTCTTGTTGGTGTAGT
CTTAATAGTTTTGAATGTTGACTGAATGTCTATAAAATTGTGAGTTTGTCTTTGTTACAT
TCCAGTGTTTCTGCCTCTTGGCATGCTTAAAGCACGGCTTACTTCATCTGCTCCTTACAC
ACTAAAATGCTGTTAGTGTGCTCAACTACAGAAATAGCCGCTGCTAAGTTGATGTAGATT
TTCTACTTGAATATTTTATGGTTGTAGGAACCTCAGGAGGGTCAGTGTTTACTGGTTTA
TATATGCCTTCTTTTCTGTTTGGCTTCTCTTTGAAGGGATTCTAACAGAACAAA
GCTGCTGATCACCCCTAAGTTGGAAACAGNAAAGNGTAATTAATAACTTAATGC

Sequence 1648

TCACCACGCGTCCGAAAGTCCGTGACATGGTTCCTCGTGGTGGCCCGTGGCAGCCCGTGG
CATGGCGTGGCTCAGCTGTCTGTTGAAGTTGTTGCAAGGAAAAGAGGAAACATCTCGGGC
CTAGTTCAAACCTTTGCCTCAAAGCCATCCCCACCACTGCTTAGCGTCTGAGATCCG
CGTGAAAAGTCTCTGCCCACGAGAGCAGGGAGTTGGGGCCACGCAGAAATGGCCTCAAG
GGGACTCTGCTCCACGTGGGGCCAGGCGTGTGACTGACGCTGTCCGACGAAGGCGGCCAC
GGACGGACGCCAGCACACCGAAGTCACGTGCCAAGTGCCCTTGATTGTTCTTTCT
AAAGACGACAGTCTTTGTTGTAGCACTGAATTATTGAAAATGTCAACCAGATTCTAGAA

TABLE 1
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ACTGCGGTATTCCAGTTCTTCTGACACCGGATGGGTGCTTGGGAACCGTTTGAGCCTTAT
AGATCATTTACATTCAATTT

Sequence 1649

CNCCACGCGTCCGGGGATCCCTGGGGAGAGTAACAGTGGCCCCACATCCCTCCTCCTGGG
AGACGCTGGTGCAGGGCCTCAGTGGCTTGACTCTCAGCCTAGGCACCAACCAGCCCGGGC
CTCTGCCTGAAGCGGCACTCCAGCCACAGGAGACAGAGGAGAAGCGCCAGCGAGAGAGGC
AGCAGGAGAGCAAAATAATGTTTCAGAGGCTGCTCAAGCAGTGGTTAGAGGAAAAGTGA
ACGTGCACCCCCATGGGATGGAGACCCGAAGGGACTCAGACGGAGCCGCGGTGTTGGCAG
CGCCTGGGTGTGGGCCCATTGTTGGGGACCAACAGCAAGCTGTGGTGGATGAGTGCCAG
GACCTGTGTACCGGGACACGTGGGGAGTCCTCCAGCATGATGCTTGACTGACCCGAGGA
AGGTCTCATGTTTCGTGCCTGTCTTCGGATGGCTGTGAGGCATTCTTGCCAAGGG
ATGCTTGCGTACCAAGCGGTCTACCGCATCTACATGGCTTCTGTGATGCATGTTGTGCG
TTCCCAACCCNGGAT

Sequence 1650

CGCGTCCGAGCTTTGCAGGGAAGAACAGAGTATGGGTGCTCTCAGCCCCTCATGCCTCGG
AAGGCTACTACCGCCTCATGATGAGCCTGCTGAAGGACGATGTGTACTGTGAGCTGGCGG
AGAGGCACATCCAACAGATTGTGCTCTTCCACCAGGCAGGTGAGGAAGGAGGCAAGGTGA
GAAGGATCACCAGCGAGGGCCAGATCCTGGAGCAGCCCCTGGACCCTAGCCTCATCCCTA
AGCTGATGAGCTTCTGAAGCTGGAGAAGGGCAAGTTTGGCATGGTGTGCTGAAGAAGA
CGCTGCAGGTGGAGGAGCGCTATCCATATCCCGTTAGGCTGGAAGCCATGTACCGAGGTC
ATNGACCAAGGCCCATCCGTAGGATCGAGAAGATCAGGCAGAAGGGCTTTGTCCAGAAA
ATGTAAGGCCTCTTGGTGTAGAGGGCCANNGTTGGTTGNCTGAGGGGGAATTGACCCGTT
GGAAGGGGGAAGCAATGAAAGGGCCAAAG

Sequence 1651

CGCGTCCGGGATGCCTTGGGTCTGAAAGTCGATGAAGGACGCGATTACCTGCGATAAGCT
TCGTGGAGTTGGAAATAAACTATGATACGGAGATTTCCGAATGGGGTAACCTAACTGAGC
AAACCTCAGTTGCATTTTGATGAATCCATAGTCAAATTAGCGAGACACGTTGCCAATTGA
AACATCTTAGTAGCAACAGGAAAAAGAAAATAAATAATGATTTGTCAGTAGTGCGGAGCG
AAAGCGAAAGAGCCCCAACCTGTAAAAAGGGGTTGTAGGACATNTTACATTGAGTTACAA
AATTTTATGATAGTAGAAGAAGTTGGAAGCTTCAACATAGAAGGTGATATTCTGTATA
CCGAAATCATAAAATCTCATAGATGTATCCTGAGTAGGGCGGG

Sequence 1652

GTCGCCNCGCGTCCGCAACATTATTGAGATTGTCGTGTATAGTCATCGAATATCAGCCAG
TTCTGTAAATTTGTGACACGCTCTCTGCCAAGCCCACCAAGTATTTCTTTATAGCTAA
AAGTTCCATAGTACTAAGGAAATAAAGCAATAAAGACAGTCTCAGCAGCCAGGATTCTGG
CTGAAGGAAATGATCCGCCACCCTGAGGGTGGTGATGGTAGTTTCTACCCATACCTCAGC
CTCAGGCGAGTGGCTTATAGCCTCCATTATGGTGCACCTTATTTATGGTACTAAGATAA
AGACTGTCAATCCATTGATTTATCTCCTCCTGTCCCCCATCTAAATACCCATGCTGCTT
TTCTGGAGTGTTGTGGGGGGGTTACCAGCTTGATCCACTGGTGCTCTTTAAGAAGGCCCA
AGAAAGGTCTTTGGGGCATTGCCAAAGAAAATCCCGGATTTATGTGGGAAAACCTCACT
TTTCTCTTTACNGGCTGGTACCAAGA

Sequence 1653

CCGTCCGTTTTTTTTTGAACCTACCGTAAAATTTTTTTTTTAAAAAGTGCTTGTAATAA
TAAAGAGGAATAAAAGGGGGGTGAACAGCCAGTACGATAGTGCATGCCTGAAATTCCAGT
GCTTTGGGAGGCCGAGGCAGGAGGATCGTTTGAGGCCAGTAGTTGGAGAGCAGTGTTGGG
AACGTAGCAAGACCCCATCTCTACAAAAATTTAAAAAGTTAGCCGGGCATGGTGATTAC
ACCTGGAGTTCCAGCTGCTGTGGAGGCTGAGGTGGGAGGATCGCTTGAGCCCAGGAATTT
GAGGCTGCAGTGAGCCATGATTGCACCACCGCACTTCAGCCTAGGTGACAGAGCAAGGTT
CTACCTCAGAAAAAAGAGGAGGAGCAAGCACGTGTTGATGGGTGGAAATCCAGCC
AGAAATGCTGAGGCTGAAAAGATTGTTCCAGTTTCTGTTAGCCAGGGGAAAAGGGGAA
ATT

TABLE 1
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Sequence 1654

CGCGTCCGCTGACATTTCTAGGAAGCTNGGAAAAGGAAAGTGAAGGAATGGTCTAAAGA
AATGACCATTCACACTGATTTTGTCTGGACAGTCTGGCCGCAGGTTATTCATAGATTATT
CAGCCTTTGCAGGACTTGGATTGAGGGTTTTACTCAGTCCCTTTACCTTAGGTGGAATCT
TCTTAAATTGAAATTTTTGGTAAGGAATTCATTTACAGGTAGTGTTTCAGACTCTGAAA
GCCCTGACTTGGTTCTTGGCTTCTACTGTACTAGTTACTAGTTACTGGTACTGTTGCCAA
GCAATCTGCTTGAATTTGTGGATCCCTGCTGTTCCCTAATCCCACCCCTGCCCTGAGA
CAGTGAATGTAGTCCGTGAAGGGAGTGCCCTCTCTGGGACCCCTGTGTTGTTACAGGCTG
TGCAGTGCAACAATTCAGCAAAAATACCCTATCCCCGCACTTAGTCATTCTGTGGTAACT
AACAATTTGAAATACTCATATAAAATGAACAGGAAAGTGGTTAGTG

Sequence 1655

GACCACGCGTCCGGACCCAGACCCGGCTGACCCACCTACCCGCGATCCTGCCCATGGCTG
ACGGGCTCTTTTCGGCGCAGACCCTGGGGTCTCGAGCAGATTGCCCCGACCCCGAGTCCG
AAGGCCTGTTTGACAAGCCTCCCCCGGAAGACCCTCCGCTGCCCGCGGGCCAGGTCCG
CGTCGGCCGCGGGCAAGAAGGCTGGTCGGCGCGGGCGGGAGGGCGCAGGGGGGCCGCG
CCGGGCAGCCCCGAAGGCCGCATCGCGCCCCCGCCCAAGAAGGAGGCGCCTCCACTGG
ACGAGGGCTGCTATCTCGACCATTTTCCGCACCTCTCCATCTTCATCTACGCAGCCATCG
CCTTCTCCATCACCTCCTGCATCTTTACCTATATCCATTTACAGCTTGCTGAGTGGCCA
GCGCGGGACGGGGTGGGCGCAGGACCGAGCGGGGAGGGAAAGGGGAAAACGGGGGCTNGG
CATTTTGTGTTTTAG

Sequence 1656

CNCTAACCCCGAACTCTAGATCGTCTTGCTTGTTTGTCTGAAGAAGGGAATGAAATAGAA
AGTGGAATAATATTTTTCAGAGCATCTTCCCTTAAGTAAGCTACAGCAAGGCATAAAA
TCTGGTACATACCTTCAAGGAACATTTAGAGCTAGCAGGGAAAATTACTTGGAAGCTACA
GTATGGATTTCATGGCGACAGTGAAGAAAATAAGAGATAATCTTACAGGGACTTAAACAT
TTAAACAGAGCTGTTTCACGAAGATATTGTGGCTGTGGAGCTTCTCCCAAGAGTCAGTGG
GTAGCACCATCTTCTGTGGTTTTACATGATGAAGGTCAAAATGAAGAAGATGTGGAGAAA
GAAGAAGAGACAGAACGAATGCTTAAGACTGCTGTAAGCGAGAAAATGTTGAAGCCTACA
GGTAGGAGTTGTAGGAATAATAAAAAGGAATTGGA

Sequence 1657

CGTCCGCGGACGCGTGGGCGGACGCGTGGGCTGGCTGTATCTATACTTTCTTGAGAAAA
ATCCCATAAAGTGGATGGACCTGTGAAGAAAATGTATGCTTATGGCCTAGCCTTCATGTC
TGGCTGATGTATCTATAAGGCAGTAAGCCCCTTTTCTAGTCTCTGGTAAGATGCAAGAG
CTCATATCCCCATCACTGACATTTTAGTTTGGAAATAATATTGAGACTGTGCTATGACCA
ACCCCTGATGTTGTTTTTTCTTTTCAAACTTTTGCATATGAGTAGAGGAAAAGCCTAAAA
GTTAAGTATTTATGTCTGGGGGGATACCTTCAGGTGTCTTATCTGTTTTATGCAAGAATT
TATGTGTTTCATCTTTATTCAGTGCAAAGATTTTTTTTTAAATTTTGTATAATTGGAGG
TAACATTAAGACAACCTCTTCTCCACAAGAAAACCTCTAAATTAATATTCCTTAAGATT
TGGTTTTCTTTGCCTTATAATATTACCTTTTAATTGCATGCAAGATTGTCATACTTTTC
AAAAG

Sequence 1658

GTCGCCCCGCGTCCGTTTGATATACCACTCTGATAACTCATATAAAAATATCATCATAAA
AAGCTTAATTTTCATCCCTTTTATGTTGGTTTTAAAAGGTAAATGCTTACCATATTTTATA
ATTGAGAACTCTTACATAGTAGAATCCATTCTATAATACATGTGTTGACAAAGCTTTAGA
GAAAGTTTCTATTCTCTTCCATTTCCCCTGCCCAAAGTGCTGACATAGGCAGTGATGAA
GAATCTTTACCAAGATTTTCAGGGTGACCTATGAAATTGCTTTAAATGCACTGCTGGTG
TAAATAATTAGCAAGCAAAAGCGTTTCTGTGACTTCAGGTACCAGCTTAAAGAGCACTAG
GGATGGGGAACGAATGCCAAATCAGACTCCACCTAGAGCACCAGGAAACAGCTTGTCCCT
GGTAGGGAATGGTGTTGCTGAAAG

Sequence 1659

CGACCNCGCGTCCGGCTGNTGACCCCATGCTGAGTGGCCNGTGGGGAGCGGCGCCCGGCA

TABLE 1
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GGCTCTTCTGGGGTCGTCTGTCCTATCCGTGGATTGTATATACTCTTCTCTGTTAAGGAG
TTTTTCCCAAGAAGAAAAGTATTTAAAGAAATACCAGTGAGTGCCTTAAAGTTGGAGAA
GTAAGTGGCCATGCCAGAAATAAGGATGCCAGTGCCAGAGCAGTGAGATTAGTCTGT
GTCCACAAGCAGAGGCCCCCTCGATGGGAGGGAGTGGCAGGCAGGAGAAGGTGGCGCTGC
CAGGTGCCCGGGTCTATTGGAGGCGCCCCATCTCAGACTTCCTAACACAGCCTGTGTGGA
AGGCAGAACAAAGAATGCATGCCAGTCAGAAATCTGTTCTATTCTGCTCCAGGAAAATC
GGAAACCTGTGAGTCANAGTCAGAGAACTTACCCAGCCACGTATTCCTGTTTCATGGGT
NCTGTAGATGTTTTGAGTCAAGGAAGGTA

Sequence 1660

TGCACCNCGCGTCCGGTGGGTCCCTGCCGGCCGGCGGGCGGCAGACAGCGGCGGGCGC
AGGACGTGCACTATGGCTCGGGGCTCGCTGCGCCGTTGCTGCGGCTCCTCGTGCTGGGG
CTCTGGCTGGCGTTGCTGCGCTCCGTGGCCGGGGAGCAAGCGCCAGGCACCGCCCCCTGC
TCCCGCGGCAGCTCCTGGAGCGCGGACCTGGACAAGTGCATGGACTGCGCGTCTTGACAGG
GCGCGACCGCACAGCGACTTCTGCCTGGGCTGAGCTGCAGCACCTCCTGCCCCCTTCCGG
CTGCTTTGGCCATCCTTGGGGGCGCTCTGAGCCTGACCTTCGTGCTGGGGCTGCTTTCT
GGCTTTTGGTCTGGAGACGATGCCGACGAGAGAAGAAGTTCACCACCCCCATAGAGGA
GACCGCGGANAGGGCTGC

Sequence 1661

GGTGTGACCNCGCGTCCGGCGCCCCGCTCGCATTGTTGCGGGCGACTCTCGGAGCGCGCA
CAGTCGGCTCGCAGCGCGGCACTACAGCGGCCCGGCCCGCCCCGCGGCCCGCGCG
CAGGCAGTTCAGATTAAGAAGCTAATTGATCAAGAAATCAAGTCTCAGGAGGAGAAGGA
GCAAGAAAAGGAGAAAAGGGTCACCACCCTGAAAGAGGAGCTGACCAAGCTGAAGTCTTT
TGCTTTGATGGTGGTGGATGAACAGCAAAGGCTGACGGCACAGCTCACCTTCAAAGACA
GAAAATCCAAGAGCTGACCACAAATGCAAAGGAAACACATACCAAAGTAGCCCTTGCTGA
AGCCAGAGTTCAGGAGGAAGAGCAGAAGGCAACCAGACTAGAGAAGGAACTGNNAACGCA
GACCACAAAAGTTTCACCAAGACCAAGACACAATTATGGCGAA

Sequence 1662

GACCACGCGTCCGGAAGGAAGGGACGGGCTGAGTTCCTCCGACGAGAGACACACCCAGATT
TTCCTGCAGCTTGGGGAGAGGTCTCCAGGAGCCTTGGTCCCTCCTGGCCTGCCGGAGT
CCTTAGCCAGGATGGAGGCTGTTGTGAAGTGTACCAAGAGGTGATGAAGCACGCAGATC
CCCGGATCCAGGGCTACCCTCTGATGGGGTCCCCCTTGCTAATGACCTCCATTCTNCTGA
CCTACGTGTAATCGTTCTCTCACTTGGGCCTCGNATCATGGCTAATCGGAAGCCCTT

Sequence 1663

GTCGACCACGCGTCCGGGCTCCATCCGGGCTATCCTGCCGCCTTAGCGGCTGCTTCTCCC
CAGGATGCGGGCAGGGGGCCTCTCTCCCACTCCCCACACACCGATTCTGAGTAGCGATA
GGGGCTGGAGGCTTATTTATGGGGTAGGGGGCGCTGGTAGGCGAAGATTGTCCGAGGG
AGAGGGGGAGGATGAAGCCAGTGCCTGGCGGAGACTTGCCAGATGTTGATGCCTAAGAAG
AACCAGGATTGCCATTTATGAACTCCTTTTAAGGAGGGAGTCATGGTGGCCAAGAAGGAT
GTCCACATGCCTAAGCACCCGGAGCTGGCAGACAAGAATGTGCCAACCTTCATGTCATG
AAGGCCATGCAGTCTCTCAAGTCCCAGAGGCTACGTGAAGGAACAGTTTGCCTGGAGACAT
TTCTACTGGTACCTTACCAATGAGGGTATCCAGTATCTCCGTGATTACCTTCATCTG

Sequence 1664

CCGCGTCCGGGGGTTGGTACCCGAGCGCCTTCCCCTCACCTCAACCAGAGAAGAGCATCC
GGTTGCTTTTTAAAGCTTTTAGCCTGCCCTAGCAAGGACAAAGCATGTTAGATTAGAGAT
GCTTCTGCTGATCGCAGGGGTTCTTATTTGAAAACATCTATGATGGGGGTGGGGTGGGAG
GAGACAGGTTGTGGTTATGCAGGAAAATCTTGTCTAAAAATATATGAGTTTGGGGGTAA
GGGGTGGGATAGCCAAGCAAAATCAGTAATTATTTAAATGAACATATGTATTTTATT
AAGTTTTAGTTAAATACAGATTTTACAACGAGGTGAGCATAAGCCTAAATCTATATAGAG
GGCTAACTCAGGCATTGTCTTGTATTATTTGTAGACTGGATTAAAAACAACCTGTCTGTT
TTGTNAGTTCACGCTTCTTTCGTTTAGAATAAATTAGACCAAAAGAA

Sequence 1665

TABLE 1

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CGGTNCGCTTAATGTCAATGTGGCCTGGGCTGGAGGTCTGGACCCCCCATGGGGGATCC
TGAGTACCTGGCTGCTTTCAGGATAGTCGTGATGCCCATCGCCGAGAGTTCTCTCCAGA
CCTAGTCCTGGTGTCTGCTGGATTTGATGCTGCTGAGGGTCACCCGGCCCCACTGGGTGG
CTACCATGTTTCTGCCAAATGTTTTGGATACATGACGCAGCAACTGATGAACCTGGCAGG
AGGCGCAGTGGTGTGGCCTTGGAGGGTGGCCATGACCTCACAGCCATCTGTGACGCCTC
TGAGGCCTGTGTGGCTGCTCTTCTGGGTAACAGGGTGGATCCCTTTTCAAGAAGGCTG
GAAACAGAAACCCAACTCAATGCCATCCGCTCTCTGGAGGCCGTGATCCGGGTGCACAG
TAAGTGTGGAGATGGGACACTCGCTGAGCTCAGACTGAAGGATCTTGGT

Sequence 1666

CGACCNCGCTCCGGTGTGATGATCGCTACTGCTGGAGACCGCACAGAGGAGTTCCACGG
CCACNGCAGTGAACCTCCTGGGGAAGTTGCCCTCAAGTGTCTGGATGTTCTCTCACCC
TGGAGCCACATGGAGACTCCACGGAGTTCATGGGAGTGAATATGGATGTGATTCTGCCCC
TCCTCATCTTCTAGAGAAGCGTTTGCACAAGACACACAGGCTGAAGGAGAGTGTAGCTC
CCGTGCTGAGCGTGTGACTGAATGTGCCCGGATGCACCGCCAGCCAGGAAGTTCCTGA
AGGCCCAGGTGCTGCCCCCTCTGCGGGATGTGAGGACACGGCCTGAGGTTGGGGGAGATG
CTGCGGAACAAGCTTGTCCGCCTCATGACACACCTGGACACAAGATGTGAAGAGGGTGGC
TGCCGAGTCTTGTGTTG

Sequence 1667

NCGCGTCCGACACTATTTAGAGAGCTCCCTTCCACCTCTCTGCCAGCCTTGTTACCTC
ACTTCTGCTCTGGCCATGGCTGTGAAGGGCCCAGCCAGCTCCCTGTTTTGATGTTCTGTG
CAACAGCTCCGGGGTCTTGTGACTGGAGATCCTCAACAGGCCCTGGAGCCAGGACTGGAG
TCTTGGCAGCTGATGAGCAGCACCTTGCCGGCCAGGAGGAGCTGATGCTGACGATCTCCC
CAACATCTGAAGGCTTAAAGAACATTGTGCTTCTCAGCCCTCCTTGCTTCTCTCAATAC
AATAAGACATTGCAGAAGCAAAAGGGTGGCCTCTGCTCCAGGCAAGGCAGCTGGCTCTGT
CTGGGGGCGTGGCCTGGGGCTTGGGTGCCACGTGCTGAGATTGCATAGTCAAAACAAGC
CATTTTTGCCAACAAATAGCTTGTGGCTCCACATTTTTCTACCCTTGCACTNAANGGCCA
GACCACTCTNTGCATGGACCAANACCATNTTCCAAACCCATGGGGCTTTTTTTNCC

Sequence 1668

CANGAATACTGAAAAATGAAGCCTAAAATGAAGTATTCAACCAACAAAATTTCCACAGCA
AAGTGGAAGAACACAGCAAGCAAAAGCCTTGTGTTTCAAGCTGGGAAAATCCCAACAGAAG
GCCAAAGAAGTTTGCCCCATGTACTTTATGAAGCTCCGCTCTGGCCTTATGATAAAAAAG
GAGGCCTGTTACTTTAGGAGAGAAAACCAAAAAGGCCTTCACTGAAAACAGGTAGAAAG
CACAAAAGACATCTGGTACTCGCTGCCTGTCAACAGCAGTCTACTGTGGAGTGCTTTGCC
TTTGGTATATCAAGGGGTCCAGAAATATACTAGAGCACTTCATGATTCAAGTATCACAGG
AATTTACCTATTACAGAGTATCTTGCTTCTCTAAGCACATACAATGGATCAATCCATTA
CTTTTGCTTTGGAGGATGGAAAGTTATGAGATATATGTTGAAGACTTGAAAAAAG

Sequence 1669

GTCGACCNCGCTCCGCCCCGCCATCACTGCTGTTCCCTCCAGGGCCAGCACTCGGGCGAG
GCAGGGGAGCTGCCTTCGGTACATAATTTGAAGGGGCACTCCCTCTTGGGCACATGCCGG
CCCTGAGTGCCTCCCTTGCCCTCACTCTGATCCTGGCCCCATAATGTCCTCAGTGGAAGGT
GATGGGGGCGGTGCTGTGGGGAGAGTAGAAAGAGGGGTTGGCATGACTAAAAATACCA
TATGTGTATTAAGTATTTGAGAATGAAATGCCAAGGAGTGCCTACTATATGCCAGCTCT
AGGAATGGAGTAGACAGTGGACACAAGAAGGACTTACGCCCTGAGCACAGGTGCCAATGG
TGACAAGACTGGCAAGACGTGAGGGCATGAATGGTTCATTACAGGCAGCTGCTGCAGATGT
GGTACCTGGTGCCATCTGCTGCTCCCTTTTCCACTTTTCTATGTCCTCCTTCCACCCCA
A

Sequence 1670

CGACCNCGCTCCGGTCTGAAGGGTCTGGCTGGTGGAGCCAGGTTTTAAAGGCAGCCGAGG
GGACCCTGGGCCCCCAGGACCACCTCCTGTATCCTGCCAGGAATGAAAGACATTAAAGG
AGAGAAAGGAGATGAAGGGCCTATGGGGCTGAAAGGATACCTGGGCGCAAAAGGTATCCA
AGGAATGCCAGGCATCCCAGGGCTGTCAGGAATCCCTGGGCTGCCTGGGAGGCCCGGCCA

TABLE 1
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CATCAAAGGAGTCAAGGGAGACATCGGAGTCCCCGGCATCCCCGGTTTGCCAGGATTCCC
TGGGGTGGCTGGCCCCCTGGAATTACGGGATTCCCAGGATTCATAGGAAGCCGGGGTGA
CAAAGGTGCCCCAGGGAGAGCAGGCCTGTATGGCGAGATTGGCNCGACTGGTGATTTCCG
TGACATCGGGGACACTATAAATTTACCAGGAAGACCAGGCCTGAAGGGGGAGCGGNGCAC
CACTGGAATACCAGGTCTGAAGGGATTCTTTGGAGAGAAG

Sequence 1671

GAGTCGACCNCGCGTCCGCAACTGGTGTCCAGCTCGGTGCACTCCAAGCGCCGTTCCCGA
GCGGACCTCACGGCCGAGATGATCAGCGCCCCGCTGGGCGACTTCCGCCACACCATGCAC
GTTGGCCGGGGCCGGAGACGCCTTTGGGGACACCTCCTTCTCAATAGCAAGGCTGGCGAG
CCCGACGGCGAGTCCTTGGACGAACAGCCCTCTTCTCATCTTCCAAACGCAGTCTCCTG
TCCAGGAAGTTCCGGGGCAGCAAGCGGTACAGTCGGTGACCAGGGGGGAGCGGGAGCAG
CGTGACATGCTGGGCTCCCTGCGGGACTCGGCCCTGTTTGTAAGAATGCCATGTCCTG
CCCCAGCTCAATGAGAAGGAGGCCGCGGAGAAGGGCACCAGTAAGCTGCCAAGAGCCCTG
TCATCCAGCCCCGTGAAGAAGGCCAATGACGGGGGAGGGCGCGCATGAGGAGGCGGGCAC
GGAGGAAGGCAGTGCCCCGTGGAAT

Sequence 1672

CGCGTCCGCTCGCGGCGNGGGCATCGNGTACATCCTCAGCAACCATGGGCTACGTGCGCCA
GCTCTCCAGGCCCTGGACACATCCAACGTGATGGTGAAGAAGCAGGTGTTTGAGCTACT
GGCTGCCCTGTGCATCTACTCTCCCGAGGGGCCACGTGCTGACCTGGACGCCCTGGACCA
CTACAAGACGGTGTGCAGCCAGCAGTACCGCTTCAGCATTGTATGAACGAGCTCTCCGG
CAGCGACAACGTGCCCTACGTGGTCACCCCTGCTTAGCGTGATCAACGCCGTGATCTTGGG
CCCCGAGGACCTGCGCGCGCGCACCCAGCTGCGGAACGAGTTTATCGGGCTGCAGCTGCT
GGACGTCCTGGCTGCGCTGCGGTGAGTCCCCACTGTAGCGGTCTGCGGNTTNNCCCTC
CTGCTCCCAAGGCCAGGCCACCTGCCCTTTGGCTCCAGCCACCTCACCTAAGCAGCAC
CTTCCAGATGGCAGGGGAGGTGGC

Sequence 1673

GTCGACCACGCGTCCGGCCAGAGCTGAGTGGCAGCCGCTCCCTTATGCAGGACATGTGC
TCTCGGCTTACCAGGGTTCTGACCGGGTCTGCTTCTGCATTACAGCGCCTCCTGGACC
TGAAGGCATCTGAGTGTGAGACCCTGTTCTAACTCTTAGAAGTGACATTGTAAGAGGTGG
TGGGGACCAGCTAATTGGTCCAACCCAGCCTGAGTGCACCACCCTTTGAACAAATGTATC
AGTGATGAAAATTTGCCTTTGCCCCGGCTTGCTGTAAATCCAGCACTTTGGGAGGCCGA
GGTGGGCGGATCACTTGAGGTGCGGGAGTTGAGGACCAGCCTGGCCAGCGTGGCGAAACCC
CGTCTCTACTAAACATAAAAAAATTAGTCAGGTGTGGCGGTGCGTGCCTGTGGTCCCAGC
TATTCAGGAGGCTGAGGCACCAGAATTGCTTGA

Sequence 1674

TGACGGCGGGCCCGGCCGACGGGAGCCGGGGCGGGGCGGCGGNCCANCGAAGGAGCGCGCG
GGCGGTCTGGCCCCGCCCTCCCCGCCGCTTCCCGGTGACCTTCAGGGGCCCGGGTG
GCGGGCGCAGGCCCTGCGGCGGCGGCGGGATGTTCTGTCAGGAGGAGAAGATCTTCGCG
GGCAAGGTGCTGCGGCTGCACATTTGCGCGTNCGACGGCGCCTAGTGGCTGGAGGAGGCC
ACCCNGGACACCTACNGTGGANAAANCTCAAGGAGCGCTTGCCTCAAAGCACTGTGCTCA
TGGGGAGCTTANAAGATCCCCAAAAGTATAACCCATCATTAAATTTAATCCACGCTGCC
TNAANANAAGGGGTGCTTGNGTGATTGCCATGNACCATNCTTGGGAAGGAAGAAACCATT
CCCAGGACCCAAAAGATGGGCCCTATTTNTTGGATTA

Sequence 1675

CACGCGTCCGGGATCCCGTACCCGGGACAGACTCGGCGCCGCTGGCTGGCCTGGCCTGGT
CGTCGGCCTCTGCACCCCCGCCGCGGGGGTTGAGCGCGATCTCCTGCACCGTCGAGGGGG
CACCCGCCAGCTTTGGCAAGAGCTTCGCGCAGAAATCTGGCTACTTCTGTGCCCTAGTT
CTCTGGGCAGCCTAGAGAACCCGCAGGAGAACGTGGTGGCCGATATCCAGATCGTGGTGG
ACAAGAGCCCCCTGCCGCTGGGCTTCTCCCCGTCTGCGACCCCATGGATTCCAAGGCCT
CTGTGTCCAAGAAGAAACGCATGTGTGTGAAGCTGTTGCCCTGGGAGCCACGGACACGG
CTGTGTTTGATGTCCGGCTGAGTGGGAAGACCAAGACAGTGCTGGATACCTTCGAATAG

TABLE 1

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GGGACATGGGCGGCTTTGCCATTCTGGTGCAAGAAGGCCA

Sequence 1676

TCCCTCTGCTGATGATGGATGCCCTAACACCTGTGCCTAACACCCCTACTGAACCCAC
AGCTCCAGCCTTAGTTTTGGAGTCAAGTGTTAAAGGTTTCTGGCCAGAGGAATTGGGGT
CTTGCCATCCCTGCAATAGCCCTTTATGGGCTCTGGGAGACAGCTTTAGGGAATAAATG
GGGATTTTCCCCTTTTCTACCCACTCCTTTGCTTCTCCAAGACTTACCCAACTCCTTC
CCCCTCAGAGAACCAAATAGCCTGAGGAAGCAGGAGAGTTCTGGTTATGGCAGATTCTT
GGTGATTTGGGGCTTCAAGACAGTAGGTGAGAGATGCTGTCAGGGACGTATCTTCTTCAT
ACCAAAGTCACTGGTCCTTTCTCAGCCTCTCTCGTGCTTTTCTCCTAATGACCATATTTT
TGCCAAAATTGGGAATATGTTATCTGACAGACCAGAATATTTGAAGGTTTGGGCTG

Sequence 1677

GCGCCGCGGATATNCGGATCAACCTATGGTNTCAATATTGTNAGTTATTCAGCATAAACA
GAATTATTTCCCAANACTTGATCTGAAATATTNNTAATGGTCNTACTNGAAACTTATATT
CTTNCTGGGAGNGANGTNTTATCATTTTTCCATGGAGACAGGTTCTAACTCTGTTGCC
AGGCTGCANTGCAGTGATGTGATCATAGCTCACTGCAGCCTGAAACTCCTGGGTGTCAAG
TGATCTCTGGCCTCAGCCTCCCAAGTAGTTGGAACCTCAGATACGTGCCACCACAACCAG
CTAATTTATTTTTAGAGATGAGGTNTCGCTATGTNGCCAGTCTGGCCNNCTAGCCNCA
AGTGATCTGGCCATCTNAGCCTTCAGTTGGAGATGTCTGATTTATGTTAATATAAGAAAG
CTGTTGATCGTTTATCATAAANGCATT

Sequence 1678

GTCNCCNCGCGTCCGCTCCTCCGCCGGCATGCAACTCGGCGCCCGCGGTCCATGGACCGG
AACCTCGGGCCGACGGACGGGAACCGGGCCGCGATCGCCGCCCTCCCGCCTCAGGCTCC
TCCTCCTCGCTCTCCGCCGCTCCGCCGACTCCCGCAGGCCCTGCACCGCCGCCGCCAG
GCTAGCGGAGCTGCCCGGGAAGCTGGGTGACGGGTTGCGGGCTGCCGCCGACTGCGGC
CTACTCCGCGCTCTCAGTGCTATTGTCCCTGGGCTGGCCTTGAGCGGGTCCACTGGG
GAAGGCNCGTGTGCGCCGGCTCCGCCGAAGATGCCGGACCAAGCCCTACAGCAGATGCTG
GACAAGAAGTTGCTGGGTTTGTGTTGCTACTGATGAAGATGATAGAACAGCTGAATGGT
GAGGACCATGGCAGGTGCAGGAGGATCTACAAATGGGTTACCAGGGCCTGTCTACAAC
GCTGGGTGGATGAAAAGCAAAGAG

Sequence 1679

GCGTCCGGGCCCCGCGACCGAGCGTGCGGACTGGCCTCCCAAGCGTGGGGCGACAAGCTGC
CGGAGCTGCAATGGGCCGCGGCTGGGGATTCTTGTGTTGGCCTCCTGGGCGCCGTGTGGCT
GCTCAGCTCGGGCCACGGAGAGGAGCAGCCCCGGAGACAGCGGCACAGAGGTGCTTCTG
CCAGGTTAGTGGTTACTTGATGATTGTACCTGTGATGTTGAAACCATTGATAGATTTAA
TAACTACAGGCTTTTCCCAAGACTACAAAACCTTCTTGAAAGTGACTACTTTAGGTATTA
CAAGGTAAACCTGAAGAGGCCCGTGTCTTTCTGGAATGACATCAGCCAGTGTGGAAGAA
GGGACTGTGCTGTCAAACCATGTCAATCTGATGAAGTTCCTGATGGAATTAATCTGCG
AGCTACAAGTATTCTGAAGAAGCCAATAATCTCATTGAAGGAATGTGAACAAGCTGAACG
ACTTGGAAGCAGTGGAT

Sequence 1680

GTCCGGCGTGGGGAAGGGTGGGGTGAGGGGGCGTGGCCGCAGCTAGGGCGGCGAACTCT
CCTCCCCTCGGCCCCACCGCGTGGGACGGCGTGAACGTGGTGTGCGAGGGATGTCAGCCT
TCTTGAGGCGGCGCTGGAGAAGAAGCTGTGCGAGTTGAGCAACTCGCAGCAGAGCGTGC
AGACCTTGTCCCTGTGGCTCATTACCACCGTAAACACTCGCGGCCCATCGTACCGGT
GGGAGCGGGAGCTGCGGAAAGAGTGGAGGTGCAACAAATGAGAAATTCCAATTGGAGATT
TTGTCAAACAGGAATTTACTCCAAACCAAACAGGAAGCTTACTTTTCTCTACCTAGCCAA
TGATGTCATACAGAACAGCAAGAGGAAGGGGCCAGAGTTTACAAAAGATTTTGCACCAGT
TATA

Sequence 1681

CCGGCAAAGCAGGGACTCCTGATTTATATGTCCCTCCTCCTGGCAATCCTCTCACCCAC
CTCCCCTGAGAACCTCAGTTCTTCTAAATTGCTAAAGCTGAGGGGAAAGGGATGCTTTG

TABLE 1

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CGGCAAAGGCGCTGCTGCCTCAAGCTTGCTTTACATGCCTCTCTAGTTCCTCTCGCACTA
CAGAGTGGTAGCGAACAAGCGTTTCGCCCTAGAAGCGACCTGAATGAAAAATCTGCAC
ACGAACTAATGGGTTTGTACGGAAAGTAGGGAACCGGGTCTGCAGCATTCCCTGGAGAC
AGACTTTCTGGTTGGTTTCAAGGGTCCAAGGCAGCCATCAGCCCGGCTGTGCCCTCCCA
CCCTGCCTCCCACCCAGTTGATTCTCTCTTTGTGTAAGTTTAGCCCTCTGAGGGTGGTG
GAGTGAGAGCATCCCATCAGATATATACGATTATCAGTCGGCACTTAAAAAG

Sequence 1682

TCACNCGCGTCCGAAAAACGCAGATGATATACCTGCAACATCNGTCATGGCTGCGCCCT
GTGCTCAGAAGCAACCCGGGTGGAATATTGCTGGTGCAACAGTGGCAGGGCACAGTGCCA
CTCAGTGCCTGTCAAAAGTTGCAGCGAGCCAAGGTGTTTCAACGGGGGCACCTGCCAGCA
GGCCCTGTACTTCTCAGATTTCTGTGTGCCAGTGCCCCGAAGGATTTGCTGGGAAGTGCTG
TGAAATAGATACCAGGGCCACGTGCTACGAGGACCAGGGCATCAGCTACAGGGGCACGTG
GAGCACAGCGGAGAGTGGCGCNCGAGTGCACCAACTGGAACAGCAGCCGCGTTGGCCCAG
AAGCCCTACAGCGGGCGGAGGCCAGACGCCATCAGGCTGGGCCTGGGGAACCACAACACTAC
TGCAGAAACCCAAGATCGAGACTCAAAGCCCTGGTGCTACGTCTTTAAGGCGGGG

Sequence 1683

CCGTCCGCTCCTTGGCAAGAACGAAAGGTGTGATGAAACCTCCCTGCTCGGAAGGGTCTC
CGTGGAGGTGTCCTCATTTACATGCTGGGTTTTGCAAGCGAGGAAGCCAGGCAGTGGAG
GAACTAGAGAGAGGCAGGCGTGTGTGTGGACAAGCGCTGGAGCCGCAGCCCTCAGACTGG
CACGGGAACGCCAGCGTTGGGTGTTTCAAGTCCACGCGTATGTCTGGGCTCACTCACAGC
ATGGCCGAGTGTCTGCAGTGTGCTGCTGACCCCTCCAGAGCAGCAGTGGACAGATGAGA
TAAGACTGTTTCAGAAACAAAGATGGCCACAGCCTTCTAACAAGCAGGTCATCTGGCCA
TGTCTGTATTGTAAGTGGTAAAAGGCTTCAAGTCAGATTGATGATCAAGAAAANGTCAA
ACCCAGCCCAAGATTGGGAAAGCAGGTTNGTGGNTCCAANGCTTTTTAAAAAATTATT
TGAAGCTCTTCATTCTNTTCTGTGAGTGTGTCTTTCTCTT

Sequence 1684

NCCCATACTGGGGGCCCCCTTCTGACAGGCCCATCAGGTGCAGAGCTGTGGGTCTGGTT
CCAAGACACTGTCACTGATGTGGATAAATCTTGAAGGAGCTCAGTAATGTCTCTCAGG
GATCTTCTGCGCCTCTCTCAACTTCATCGACTCCACCAACACAGTCACTCCCACTGCCTC
CTTCAAACCCCTGGGTCTGGCCAATGACACTGACCACTACTTTCTGCGCTATGCTGTGCT
GCCGCGGGAGGTGGTCTGCACCGAAAACCTCACCCCTGGAAGAAGCTCTTGCCCTGTAG
TTCCAAGGCAGGCCTCTCTGTGCTGCTGAAGGCAGATCGCTTGTTCCACACCAGCTACCA
CTCCAGGCAGTGCATATCCGCCCTGTTTGCAGAAATGCACCGCTGTACTAGCATCTCCT
GGGAGCTGAGGCAGACCTGGCAAGTTGTATTTGATGCCTTCATCACGGGGCAGGGAAAGA
A

Sequence 1685

CCGCTGGTTATTACCCAGCTGGATGGTTTTCTTTTAGGCAAGAAGGAGGTATCAGCAGG
CTCCCAACAATAATGCCGAAGTTAACAATGATGGGCAAAATGCAACAACCTGGAACCTG
AAGAAATGGAGCGTCTTATGGATGATGGGCTTGAAGATGAGAGTGGAGAAGATGGAGGTG
AAGATGCCAGTGCAATTCAAAGGCCTGGATTAATGGCTTCAGCTTGGTCTTTCATCACCA
CCTTCTTTACTTCACTAATACCAGAGGGGCTCCCCAGGTTGCCAATTGACCTGAAAAAC
TGTGCCAGCTACAAGGAGGGTCTGACTTCAGGAAAGTGGTTTAAATAACAGTGCAATTTT
AAAAAATTTATAACTTTCTTTGATCATCATGTACAGAGGTGTTTTTTTTCTTTAGGCT
TCTCATGCATATGAATATTTAAGCACGAATGGACTACTAAATATCTGAGTTTTTTTTT
TTTTTTTTTAAAGAATC

Sequence 1686

CGCGCCGGTTTGGCTGCCCTGCATAAGCTGCTACAAATAGAATAAAGAATTTATACGCC
TGTATCTATCATTTAGATGCATGGAAAAAATGGGCTTTGCACACAATGGGTTTGGAGCT
GACTGGGAACAATGGAAAAAATTACATTAGCTGTGGTTGTAAAGTTTTTTTGTGTTTGGT
TTTGTTTTTTTTCTTTTTCTTTTTTTTTTTTACCATCTTGTGAAAGGTTTCTGAA
ACTCGATAATAAAAAGCGGTTGGTGAAATTATCTTTTGTGCACATTTTGAAGGAA

TABLE 1

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AAACATAAAAGAATGTATCCTTAGTACTGGTTCTTAAACAGCCCATAAAAAACCCATTGGC
CTGAAGCTTATATCTCAGGCCTATGCCCATCTTATAGTCTTGGAAGACAAAA

Sequence 1687

CGCGTCCGTGGGTCTCGCCCTCAACCTGTGCATGTATATGTGTGTCTTTGTGTGTGTATG
TGTGATCTCTGCCTGCAGGACCAGCCCGGTGGCACCCTGGATCTGACCCTGATCCGTGCC
CGCCTCCAGGAGAAGTTGTACCTCCCTACAGCTCCCCACAGGAGTTTGCCAGGATGTG
GGCCGCATGTTCAAGCAATTCAACAAGTTAACTGAGGACAAGGCAGACGTGCAGTCCATC
ATCGGCCTGCAGCGCTTCTTCGAGACGCGCATGAACGAGGCCTTCGGTGACACCAAGTTC
TCTGCTGTGCTGGTGGAGCCCCCGCCGATGAAGCCTGCCTGGTGTGCTTGGCCTGAAGTTTC
CCAAGGAAGCTGTCTGGTGGGCCCCCTTGGGTGATGGGCCCCCTTGGAGGGCTTGAAGCCC
CCCCATGGGCCAAGCCCCAGCCCTGGGCTTCTGGTTCNTCTTGTCCCTGGTCACCCCAT
CCCCACTCCCCCTTGGGTGGGCCCTTGAACCTNCCACTTCCCTTGGGTGGGGCCC

Sequence 1688

AGGAGGNTTGAAGGAGTTGNNGGAGGAGGAGGATGGAGGCGAGGGCGAGCGAGCCCAGCG
GGGTCCNGGNCGCCCGCGGGCCAAAGTCGAGCCCTNCCGCCNNTGGGCGAGCGCGCCAG
CCGCCNTTTCANAACAGTTCGNCGCCACAAAANAAAAGAACGGGGGGGTGCCGAGGTTN
CCATTGANCTCTTAAAGTGGTGCAGGTCCCTGTTGAGTGCGCTGCACCGGGCCGTGACC
CGCGCCCTGTGCGTCCC

Sequence 1689

GGAGTCGACCACGCGTCCGCGCCGGCCGCGGTGTCCGGACCGCTCGCCCCCGTTTGGAC
CCGACTTCGGTTCTTCTGGGGTGTGATGCTCCTAAAGCCCGAGAGCACGTGTCCAGACC
CTAGCCTGTACGACGCTGACTCTGCCCGGTCCAGAACCAAGCCATGCCGGGGTGTGGC
CTCTGACCCACGCGGAGGGGACCTCGCCTTGCGGGACCCACCTGGAACCCGACCTNCC
AGNCTCGCAGCCGGCCTGAGCCGCCATGCGCGGAAGTTGCTGCCGCTGGCCGGCCTATA
CCTGGTGCAGGGCCTGCCCTACGGGCTCCAGTCCGGCCTCCTGCCAATGCTGCTTGCCT
GCCGGCGGCCTCTCGCTGACGCGCGTGGGGCTGGCCAAGGTTCTGTACGCTNCGTGGCTT
GCTTCAAGCTGGCT

Sequence 1690

CNCCCCGCGTCCGCGGACGCGTGGGTGCTTGCTGCTGAACCTGAGCTGCAAGTTGGAATT
GATATAATGAAGACTAGTTTTCCAGGTGCTGGTTCAATTCAGAATTCCTTTCATATTATG
AAAAGAAAGTTTACCAACAAAGAATGGGAAACAATCAGAAGCTTTAAGGATGAGTGGACT
CAGCTGGATATGTTTTATAGGAATTGGGCACTTAAGGAAAGCTTCATAAAAGCCATTGGT
GTTGGACTAGGATTGAATTGCAGCGGCTTGAATTTGATCTATCTCCATTAACTTGGAT
ATAGGCCAAGTTTATAAAGAAACACGTTTATTCTGGATGGAGAGGAAGAAAAAGAATGG
GCATTTGAGGAAAGCAAAATAGATGAGCACCATTTTGTTCAGTTGCTCTTAGGAAACCC
GATGGGATCTAGACATCAGGGGATGTTCCATCTCAGGATGATTCCAAACCAACCCAGAGG
GCAATTTACTATTCTCAACTTAAATGATTTAA

Sequence 1691

GACCACGCGTCCGCCGTCCAGGAGCCCTAGGAGTGCTACGGGGGGCCGGAGCCTTGCCC
GGGCCGCTGCCCGTCCCTGGATTCCGGGGCTGGACGCAGCAAGCGGGGCGCTGTGTCCCC
AAGCTCCCCGTCTCGGCCAGGCGGGCACCACGGCAGGGGCTGAGCTACCCTCATGGAAG
GGAGAGGACCGTACCGGATCTACGACCCTGGGGGCAGCGTGCCCTCAGGAGAGGCATCCG
CAGCTTTTGAGCGCCTAGTGAAGGAGAATCCCGGCTGAAGGAAAAAATGCAAGGGATAA
AGATGTTAGGGGAGCTTTTGAAGAGTCCAGATGGAAGCGACCAGGCTCCGGCAGAAGG
CAGAGGAGCTAGTGAAGGACAACGAGCTGCTCCACACCTTCTCCCTCCTTGGGCTCCT
TCGACCCCCTGGCTGAGCTCACAGGAAAGGACTCAAATGTCACAGCATCTTCCACAGCCC
C

Sequence 1692

ACAGAATTTAGGGGTGGGTGAAAGCACTTGNGCTTTAGCTNNTTTCATATTAAATATATAT
CTATATTTAAACATTCATGGCATAGATGATGATTTACAGACAATTTAAAGTTCAAGTCT
GTACTGTTACAGTTTGAGAATTTGTAGTATTACATCATTACATAAGTCATTTTAGTAACA

TABLE 1
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GCCTTTGTGAAATGAACTTGTTTACTATTGGAGATAACCACACTTAATNAAGAAGAGACA
GTGAAAGTACCATCATAATTAACCTAAATTTTTGTTATAGCAGAGTTTTCTTGTTTAAA
AAAAAATAAAATCATCTNGAAAAGCATTGTTACAGTTAAATGTATAATGAAGCTTTTG
CCAACCAGACTGGTGCTTAGCAACCAAATTTTTTTTTAAATAAAGCTTTTATGGCAGGT
GGGTAAATAAGGTGGCCTTCAAATATATTGGTGTCTTGATGGAGAGTTNTTAGTTGAA
ATGAATGTGGGTCTTTCT

Sequence 1693

CGGTTAACATGGCCGTCACCGACAGCCTCAGCCGGGCTGCGACTGTCTTGGCAACTGTNT
TGCTCTTGTCCTTCGGCAGCGTGGCCGCTAGTCATATCGAGGATCAAGCANAACAATTCT
TTATGAAGTGGCCNATCAACAANCTGGGCCTGTTCTTGGTGTGTACATCCCCGATTCTG
GTATTAATTATCGACATGTTGCAAATACCCTTTCTGTTTATAGAAGTGTCAAGAGGCTAG
GTATTCCTGACAGTCACATNTGCCCTAATGCTTGCAGATGATATGGCCTGTAATCCCTA
GAAATCCCAAACAGCTACAGTGTTTAGTTTACAANCAATNTGGAACATAATGGTGTAT
GGGAGAAATGATGTGGGAAGGTGNNATTATAGAAGTTNTTGAGGTAAACNGGTGGGAGAA
NNNTTTTTTACCNGGGTAATTTAANCTGNGGGAGGGANTCCCCACCCTAAGTANCTTCC
TTCGGG

Sequence 1694

GTCCGCAAGATGGACGCAGCTCTCTGACCTACGACACTCTCCGGTTTGCTGAGTTTGAAG
ATTTTCCTGAGACCTCAGAGCCCGTTTGGATACTGGGTAGAAAATACAGCATTTCACAG
AAAAGGACGAGATCTTGCTGATGTGGCATCTANACTTTTGNTTTACATACAGGAAAAAC
TTTCCAGCCATTGGGGGGACAGGCCCCACCTCGGACACAGGCTGGGGCTGCATGCTGCGG
TGTGGACAGATGATCTTTGCCAAGCCCTGGTGTGCCGGCACCTAGGCCGAGATTGGAGG
TGGACACAAAGGAAGAGGCAGCCAGACAGCTACTTCAGCGTCCTCAACGCATTTCATCGAC
AGGAAGGACAGTTACTACTCCATTACCAGATAGCGCAAATGGGAGTTGGCGAAGGCAAG
TCCATAGGGCCAGGTGGTACGG

Sequence 1695

CCCCGCGTCCGCTCGNAGCTGTCCGCGGTCTGTTTGGCCCGAACGGCGGGCGGAGGCGCTG
ATCATGGCGACATTCATCTCGGTGCAGCTGAAAAAGACCTCAGAGGTGGACCTGGCCAAG
CCGCTGGTGAAGTTCATCCAGCAGACTTACCAAGCGGCGGGGGAAGAGCAGGCCCCAGTA
CTGCCGCGCGGCGGAGGCTCAGCAAGCTGCGCCGCGCCGAGTCGGTCTCGCTCGGTA
CAAGCACGAGGGCGCGCTCGAGACGCTCCTGAGATATTATGATCAGATTTGTTCTATTGA
ACCCAAATTCCATTTTCTGAAAATCAGATCTGCTTGACATTTACCTGGAAGGATGCTTT
CGATAAAGGTTCACTTTTGGAGGCTCTGTAAACTGGCTCTTGCAAGCTTAGGATATGA
AAAGAGCTGTGTTGTTGTTCAATTGTGCAGCCTTAGCTAGCCAAATTGCAGCAGAAACAAG
AACCTGGATAATGATGAAGGGATTGAAAATCGCT

Sequence 1696

TTCGGGAGTCGACCCCGCTCCGGGCCAGCCGGCTCGCCCGGGGGCCATGGCAGCAGCGG
CTACTGCAGCCGAGGGGGTCCCCAGTCGGGGGCCCTCCCGGGGAAGTCATTTCATCTGAATG
TGGGAGGCAAGAGATTCACTACCTCTCGCCAGACTCTCACCTGGATCCAGACTCCTTCT
TCTCCAGTCTTCTGAGCGGACGCATCTCGACGCTGAAAGATGAGACCGGAGCAATCTTCA
TCGACAGGGACCCTACAGTCTTCGCCCCCATCCTCAACTTCCTGCGCACCAAAGAGTTGG
ATCCCAGGGGTGTCCACGGTTCAGCCTCCTCCATGAAGCCCAGTTCTATGGGCTCACTC
CTCTGGTTCGTGCGCTGCAGCTTCGAGAGGAGTTGGATTGATCTTCTTGTTGAAACGTC
CTCTTCAATGGTTACCTGCCGCCACCAAGTGTCCAGTGAAGCGGCGGAACCGGCACAGC
CTAGTGGGGCCTCA

Sequence 1697

CGTCCGAAGGAAGGAAGGGACGGGCTGAGTTCCCGACGAGAGACACACCCAGATTTTCC
TGCAGCTTGGGGAGAGGTCTCCAGGAGCCTTGGTCCCTCCTGGCCTGCCGGAGTCCTT
AGCCAGGATGGAGGCTGTTGTGAACCTGTACCAAGAGGTGATGAAGCACGCAGATCCCCG
GATCCAGGGCTACCCTCTGATGGGGTCCCCCTTGCTAATGACCTCCATTCTCCTGACCTA
CGTGACTTCGTTCTCTCACTTGGGCCTCGCATCATGGCTAATCGGAAGCCCTTCAGCT

TABLE 1
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CCGTGGCTTCATGATTGTCTACAACTTCTCACTGGTGGCACTCTCCCTCTACATTGTCTA
TGAGTTCCTGATGTGCGGGCTGGCTGAGCACCTATACCTGGCGCTGTGACCCTGTGGACTA
TTCCAACAGCCCTGAGGCACTTAGGATGGTTCGGGTGGCCTGGCTCTTCTCTTCTCCAA
GTTT

Sequence 1698

CGCGTCCGGCCCGCGCCCATGGCCCCGCGCTGCCCGGCCGCGCGGGCGGGCCCGCCACGCC
GCTGTGCGCCACGCGCCTGTGCGCGCTGCAGGAGAAGGAGGAGCTGCGCGAGCTCAACGA
CCGCCTGGCGCACTACATCGACCGCGTCCGCGCGCTGGAGCTGGAGAACGACCGGCTCCT
GCTCAAGATCTCAGAGAAGGAGGAGGTGACCACGCGCGAGGTGAGTGGCATCAAGGCGCT
GTACGAGTCGGAGCTGGCCGATGCCCGGAGAGTCTGGATGAGACGGCTCGAGAGCGTGC
CCGGCTGCAGATAGAGATTGGGAAGCTGAGGGCAGAGTTGGACGAGGTCAACAAGAGCGC
CAAGAAGAGGGAGGGCGAGCTTACGGTGGCCAGGGCCGTGTGAAGGACCTGGAGTCCCT
GTTCCACCGGAGCCGAGGTGGAGCTGGCAGCTGCCCTCAGCGACAAGCGCGGCTGGAGA

Sequence 1699

ACGCGTCCGGAAGAATCTACACTTCTTTGCACCAGAGTATGGAGAAGTCACTAATGTGAC
AACAGCAGTGGACATCTACTCCTTTGGCATGTGTGCACTGGAGATGGCAGTGTGGAGAT
TCAGGGCAATGGAGAGTCTCATATGTGCCACAGGAAGCCATCAGCAGTGCCATCCAGCT
TCTAGAAGACCCATTACAGAGGGAGTTCATTCAAAAGTGCCTGCAGTCTGAGCCTGCTCG
CAGACCAACAGCCAGAGAACTTCTGTTCCACCCAGCATTGTTTGAAGTGCCCTCGCTCAA
ACTCCTTGCGGCCCACTGCATTGTGGGACACCAACACATGATCCCAGAGAACGCTCTAGA
GGAGATCACCAAAAAACATGGATACTAGTGCCGTACTGGCTGAAATCCCCCAGGCCCTGAT
CTGCGCTGTGGCTGTCCCTGGGACGTGCTGCAGCCCTCCTGTCCCTTCCCCCAGTC

Sequence 1700

GGGAGTCGCCCCGCGTCCGGATTTCACTTGGTGGCGTCATAGTCTCATTACAGTGTCTAT
CTTGGCATTACCAATTTACTTGTCTCTTTGTCCCACTATTAGGGATATCTTTGGTTT
TATTGGTGCAGTCTGCAGCTTCTATGTTGATTTTATTCTTCTTCTGCCTTCTATATCAA
GTTGGTGAAGAAAGAACCTATGAAATCTGTACAAAAGATTGGGGCTTTGTTCTTCTGTT
AAGTGGTGTACTGGTGATGACCGGAAGCATGGCCTTGATTGTTTGGATTGGGTACACAA
TGCACCTGGAGGTGGCCATTAATTGGCACCAGTCAAACTCAAACTCAGTCCATCTGATGC
CAGTGTGAGTAACTCAACTACTATGAAATTTACCTAATGTTTTAGTTTCACTTCTCT
TTTGAAGTGCAGATTCTCGCTGGTTCTTCTGAGTGCAGAATAAGTGAACTTTTTGT
TGTTTTGNTTTTTTAAGAAAC

Sequence 1701

CCCACCGTCCGCGCGCGCGCCTCGCCTCGGCCGGCGCCTAGCAGCCGACTTAGAACTGG
TGCGGACCAGGGGAATCCGACTGATAAATTAACAAAGCATCGCGAAGGCCCGCGGCGG
GTGNTGACGCGANTGCGATNTNCTGCCANNGCNTCTTGAATGTCAAAGTTGAANAAANC
CAATGAAGCGCGGGTAAACGGCGGGAAGTAACTAATGACTTCTCATTAAAGGTAGCCAAA
NGCCCTTCGTCATCTNAATTAAGTTGGACCGCGCANTGAAATNGGATGAAACCNAGANTT
CCCACNTGTCCCTACCTACNTAATCCAAGGCGGAAAACCAAGCCAAAGGG

Sequence 1702

CGACCACGCGTCCGGACAGATTGATAGCTCTTCTCGATTCCGTGGGTGGTGGTGCATGG
CCGTTCTTAGTTGGTGGAGCGATTGTCTGGTTAATTCGATAACGAACGAGACTCTGGC
ATGCTAACTAGTTACGCGACCCCGAGGTGCCTGACCAGTTCTACCGCCTGTGGCTATCCC
TCTTCTGCACGCCGGGATCTTGCAGTGCCTGGTGTCCATCTGCTTCCAGATGACTGTCC
TGCGGACCTGGAGAAGCTGGCAGGCTGGCACCAGCATAGCCATCATCTACCTGCTGAGTG
GTGTCAACCGCAACCTGGCCAGTGCCATCTTCTGCCATACCGAGCAGAGGTGGGTCTG
CTGGCTCCAGTTCGGCATCTGGCCTGCCTTCTCGTGGAGCTCTTCCAGAGCTGGCAGA
TCCTGGCGCGGCCCTTGGCGTGCCTTCTTCAAGCTGCTGGCTTGTGGTGTCTTCTCTT
CACCTTTGGGCTGCTGCCGTGGATTGACAACTTTGC

Sequence 1703

TABLE 1

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GATCGACTTCGCCTGACGGAATCCAGGGGTCGTAATATATGTAACTCGCGTCCGNGCTG
CGTGCCAGAGTAGTGGCCGAATACCTTAACGGGGCTGTGCGCGAGGAGAGCATCCACTG
CAAGTCGGTCGAGGAGATCTTCGACGCTGGTGAGAANCTGGCCGACCAGTCGGGCTTGG
ACGTGATCCGCATTTCGAAGCCCTTCCACACANGACAACCACTAGCATTACAGGGCCAGTA
GGCACCCCTTACCAACAAGCTTGACCACGTGTCCCGCGGAACTANCGCACCCCGAGNA
GGGTTCAANGNATTCCTTGACCCAGCCAGATGCCCTGGCTTNTGGGGGNGCAAGTGAC
CCTTTGTGNAACCCACTCATTTTTTATGGCAAGGTGAGCATTNCCTAAAAACCTTGAAA
AATGANGGGAANAACCTTCAAGGGGTTTTTACAGGGCCCTTGGTTTTTTTAAATCCC
CAANATTTGGATAATAAATGGAATCCTCAAAAACACAAGTGAGGAAGGNTCTTGAAAGG
GC

Sequence 1704

TCGACCACGCGTCCGGCCGGAGAACTTGAGCCGGCTGCCCCGCCACGGTGCCCGAAGC
CCCAAAGGCTGGAATTAGGGGCTAGAAGTCTGGCACCCACCGCTGGCCAGGTGTTCCGG
ACGCGACCAGGTGGGCGGTGCCCCGCCCCGGGAGCGCGGCTTAATAGCTGAGAGCCCGG
GGGCCAGGCCGNGGCTGCGGCCAGGCAACGCCCTGAGGGTGGCCACGCTGNCAGGTGTT
CCACTCCCCCGGACTATGGGCAAGGGCCCGGGGCGGGGAGGGCGGCAGGTGCTGACACT
GGAGCTGCGCCGGAGGTGCGGGAACCTCGGCCTCCTAAGACTGAGGACACTCGCCTGCTGG
GCCGNGCAGCTGTGCGGTGCCCTCCGGACGCAAGGGGCGCTGCAGCCACGCTGGGTCA
GGCTCCGAAGGGCCCTCCCAACCCGGGGA

Sequence 1705

CGCCACGCGTCCGGAAAGATGGAGGTGTGGGGACAGGAGCTGGGTGTGCTGGGGACTGGC
CGCGGACCCCTAACCTGTGTCTCCGGTCTCCCTCCGGGAGCGGCTCAACCCAGCCCATCG
CTCTGGCCCCGTTCTGGCCCTGCAGGGTGGTGGTTGGGACGTTGAAATGAGCGCGGAGT
GGTACGTCTCTCTCCGCGCTCACGCCCCCTCCTACCGTGTTCCCGCCAGGACCATC
AGCACGTGCCATCGACATCCAGACCAGCAAGCTGCTCGATTGGCTGGTGGACAGAAGGC
ACTGCAGCCTGAAATGGCAGAGTCTGGTGCTGACGATCCGCGAGAAGATCAATGCTGCCA
TCCAGGACATGCCAGAGAGCGAAGAGATCGCCAGCTGCTGTCTGGGTCTACATTCCT
ACTTTCACTGCCTAAGAATCCTGGACCTTCTCAAAGGCACAGAGGCCTTCCACGAAGAT
ATTTTGGC

Sequence 1706

TCGCCNCGCTCCGCTGAAGCAAGAGAATCACTTGAACCCAGGAGGTGGAGGTTGCGTGA
GCTAAGATCGCGCCACTGCACTCCAGCCTGGGCGACAAGAGTGAAACTCCGTCTTAAAAA
AGCCCATGGCAGGCTGGGCGCGGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCA
AGGTGGGCGGATCACAAGGTGAGGAGATCGAGACCATCCTGGCGAACACGGTGAAACCC
GTCTCTACTAAAAAAATACAAAAAATTAGCCAGGCGTGGTCTGGGCACCTGTAGTCC
CAGCTACTCAGGGGGCTGAGGCAGGAGAATGGCGTGAATCCGGGAGGCGGAGCTTGAGG
GAGCCGAGATAGTGTCACTGCACTCCAGCCTGGGTGACAGAGCGAGACTCCGTCTCAAAA
AACAAAAAGCCCGTGGCAATTAATGGTAAAGGAAACCCGGCTTTAGTGTAAGAGGTAA
CATAA

Sequence 1707

GCGTCCGGCCTCCAGCAAAGCCCATTCAAGTCAGCTCTGCAGGCTCATCTTACAAGAATAA
TCCCTTTGCCAGCTCAATCTCAAACATGGGGTTTTCTTCTGGCAGCTCTTCTCGGGAGG
AACACCAGTCCAGAGTTCTGTTTCTGGGAGCCTGGTCCCTGGCATACAGCCTCCCTCCGT
GGGACAGGCCACCAGCCGACCCGTCCCAAGTTCAGCAGGGAAAAAATGCCTGTTTCCCA
GAAGTTGACTCTGGTAGCCCTCCAGGCGGTCCAAACGGAGATTCCAGTGGTGGGACCCA
GGGGAGTGGCAAAGTTGCTGACCTCGCGTCCCTAAAGCCCTCTGCAGTTAGTAGTGTA
CATCGTCTACCTCCTTGTCAAAAGGAGGCGAGTGGGGACTGTGCTGCTGGCCGGCTCCTC
TTTGATGGCTTTACCCTACAAATCCAGCAGCCCAAAGCTGTCTGGGGCCATGAGCTCGAA
CTTCTTGGGAAATTATAC

Sequence 1708

CACGCGTCCGGGAAGCGGTGCGCTCCGTCAACACGGGAGTGCGGGAATCCGCCGTTTGGC

TABLE 1
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CTGAGGCAATGGCGGCAGCTGCGCCGGTGGCCGCGGACGACGATGAGCGGCGGCGGCGGC
CGGGGGCTGCACTGGAGGACTCCCGGTCCCAGGAAGGGGCAAATGGTGAGGCCGAGTCAG
GTGAGCTCAGCCGGCTTCGGGCTGAGCTGGCAGGCGCCCTGGCAGAAATGGAAACCATGA
AGGCTGTGGCAGAGGTGAGCGAGAGCACGAAGGCCGAGGCTGTGGCTGCGGTGCAGCGGC
AGTGCCAAGAGGAGGTGGCCTCGCTGCAGGCCATCCTGAAAGACTCCATCAGCAGCTATG
AAGCCCAGATCACCGCCCTGAAGCAGGAGCGACAGCAGCAGCAGCAGGGACTGTGAGGAG
AAGGAGCGGGAGCTGGGCCGCTGAAGCAGCTGCTGTCCCGGCCTACCCCTGGA

Sequence 1709

CACGCGTCCGCGGACGCGTGCGGTCCGCGGCGGCGTCCGGGGTCTCCAGTAGGGCTGACGC
TCCGGTGCTCGCACAAATCCCCCGCTCGGCTGGCAACGGGCGTCCCTCCACTCCCCGAGT
CCCCGGCAGCCGCCGCCACCCAGCGCGCCCGATCTGGCCCCCTGCCCGCGAAGATGG
CTGCCGTACGCCGGGCCCCGAGTTATTGCCGCTGCCTGGTGCGCTTCTCCGACCGAGAAC
TCTGCTAAGCTCCGCTGCAGAGACAGGCAGGAGTAGACACCCGGACACCCAGCACCCCTC
CTTCGGGGGGCGGTGCAGAGGGGGCACGGAGAGCCCTCGAGCGCAGCAGGCCGCCCGC
CAGCATGGCAGAAGCTGAGGAAGATTGTCATTCTGATACTGTCAGAGCAGATGATGATGA
AGAAAATGAA

Sequence 1710

ACGCGTCCGGCGAGTGCCCTTCCCGGTTGGCGCGCGCCCGGGGCGGCGGCGCTGGAGGAG
CTCGAGACGGAGCCTAGTTATGTCTGGGAGGCGAACGCGGTCCGGAGGAGCCGCTCAGCG
CTCCGGGCCAAGGGCCCCATCTCCTACTAAGCCTCTGCGGAGGTCCAGCGGAAATCAGG
CTCTGAACCTCCGAGCATCCTCCCTGAAATCTGGCCGAAGACACCCAGTGCGGCTGCAGT
CAGAAAGCCCATCGTCTTAAAGAGGATCGTGCCCATGCTGTAGAGGTCCAGCTGTCCA
ATCACCTCGCAGGAGCCCTAGGATTTCTTTTTCTTGAGAAAGAAAACGAGCCCCCTGG
CAGGGAGCTTACTAAGGAGGACCTTTTCAAGACACACAGCGTCCCTGCCACCCCCACCAG
CACTCCTGTGCCGAACCCTGAGGCCGAGTCCAGCTCCAAGGAAGGAGAGCTGGACGCCAG
AGACTTGAAATGTCTAAGAAAGTCAGGCGTTCTACAGCCGGCTGGAG

Sequence 1711

CNCGCGTCCGAAGGCACAGGCGTCTTGCTCTGTTGAAGCAAGTCAGTATCCGAGAAAAT
GCTGTTCCCTTTGTTGTGATGAGGTAGCAGACACACAATTGAAGCCATGTGGACACAGTG
ACCTGTGCATGGATTGTGCCTTGCAGCTGGAGACCTGCCATTGTGTCTGTAAGAAATAG
TATCTAGACTCAGACAGATTTCTCATATTTTCATGACACATGTGAAGAGGCATCGTGGACT
TTTTTCTAATCAATCCAGCCAATGTTGAAAAGAAAAAGAAAAAAACTCTAATCAGT
TGACACACATTGAACTTATAGCCATGGCCAGATTTTATGCTAAAAATGGATTTGTC
AAAGACAAAATTCTCTTAGAATCTAATCCAACCTTGCCAGCCCTGAGAAAAATCCCTTTTAA
GGCCAAGGGAAAGCTGAATGCTAGCAGCCAGGCCTGTGGTACTTCCATGAGAAACCATAG
CAGGACAATGCCCTC

Sequence 1712

CCACCGTCCGGGCGGCCAGAGGTGCGAGAAGGCCGAGGAGAAGGCCAAGGAGATTGCGAA
GATGGCAGAGATGCTGGTGGAGCTGGTCCGGCGGATAGAGAAGAGCGAGTCGTCGTGAGC
GCGGTGCGCGGTTTCCAGCCAATGGATTCTGGTCAACTGGTGGAGATTGGCTGACACCCT
GGAGAAGCCGAAACCAGAGAGCCTTTTGTCTCTCTTTTCTGTCTATGCTCTGTCTC
ACTTAACACTACGTTTTCTGCTATGGTCTGTGGTTGATGACCTCAATATGAGTTTCGATT
GTTAACCGTGTTTTGTTTGGGAAGTAATTTTGTGTTGAAAATGCTCTCACATACAGGAAT
TAGGGCCTAGATTGTAAGCTCTTGACAGCAGTCACATTTGTTCCCGGGCTTTGGTGGTTAT
TTTCTAAATTTTGGAGTGCCTTTGCTATTTCTTGTTGTGACCTGATAGCTTCCCCTG

Sequence 1713

GCGTCCGAGCCTCTGGGGGTGGATCCTGAAAGGTGGTCCAGCCGCCTGGCCCTGCGTGGG
ACCCTCCACCTGGCAGCAGGGTCTCGCTCTGTACACAGGCTGGAGTGCAGTGGTGTGAT
CTTGGCTCATCGTAACCTCCACCTCCCGGGTTCAAGTGATTCTCATGCCTCAGCCTCCCG
AGTAGCTGGGATTACAGGTGGTGACTTCCAAGAGTGACTCCGTCCGAGGAAAATGACTCC
CCAGTCGCTGCTGCAGACGACACTGTTCTGCTGAGTCTGCTCTTCTGGTCCAAGGTGC

TABLE 1
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CCACGGCAGGGGCCACAGGGAAGACTTTCGCTTCTGCAGCCAGCGGAACCAGACACACAG
GAGCAGCCTCCACTACAAACCCACACCAGACCTGCGCATCTNCATCGAGAACTCCGAAGA
GGCCCTCACAGTCCATGCCCTTTTCCCTGCAGCCACCCTGCTTCCCGATCCTTCCCTG

Sequence 1714

GTCGCCACGCGTCCGCAGAAGATTGACAAATCTGAGGGCCGCTTCCATGTCCAGAACCTT
AGCCAGGTGGAGCAGGATGGGCGGACGGGGCATGGACTCCGCAGATCTTCCAAGTTCTGC
TTGAAGGAGCACAAAGCCCTCAAGACGTTAGGCATCATCATGGGCACTTTCACCCCTCTGC
TGGCTGCCCTTCTTCATCGTTAACATTGTGCATGTGATCCAGGATAACCTCATCCGTAAG
GAAGTTTACATCCTCCTAAATTGGATAGGCTATGTCAATTCTGGTTTCAATCCCCTTATC
TACTGCCGGAGCCCAGATTTCAAGATTGCCTTCCAGGAGCTTCTGTGCCTGCGCAGGTCT
TCTTTGAAGGCCTATGGCAATGGCTACTCCAGCAACGGCAACACAGGGGAGCAGAGTGGA
TATCAGTGGAACAGGAGAAAGAAAATAAAC

Sequence 1715

CCCCCGTCCGCTTTTGTTNATCTAAAGGCTTNAGTCCCATTTTTTTATACGTTGTATTTT
AAAAACGTTTGAAAGGAGTCTTACACCTGTATCATGAAAACCTGAATCCTTTTGAAATACC
ACTATATGAAGAGAGAGATGAAATTTAGTGAACAGAATTGGAAAAGGTGCTCATAATTTT
ACTATGCAAACCTACCCCAAGTCTCTAAAAAAGTAATTTAGATTTAAAGTTCTTTGATGTA
TTTGATTTTCTAAATCTTTATGGTTATGATTTGGAATAAAATGTGCCTAATCCTGTGTTA
CATTCTGTTCTTAAATCTGAATGCCTTCTCATTAAATTCTGAGGAAATATCACACAAGTG
TCTTCATTGACCTTGAAGAAATGTATATACAGTTGCCTTATAAAACAACATAAATTTAGA
CCATAACTTTTATAGAGAAAGGGTTTTGTCAAATGTTTTCTGAAAATCTGAGTAATTCAA
AGCATGCCTCTGCCCCCTTTAATA

Sequence 1716

NGTCGCCACGCGTCCGGCGCTCTCGGCCGCCGCCGCTCTGCGTGGGCCGGCCGGGAGGG
CCTCGGGGGACTGACTGACAGAGTTTCACTCCTGTTACCCAGGCTGGAGGACAATGATGT
GATCTCGGGTCACCACAACCTCCGCCTCCCGGATTCAAGCGATTCTCATGCCTCAGCCCTC
CCGAGTAGCTCAGATTACAGGCATGTGCCACCACGCCCGGCTAATTTTGATTTTCAGTC
GAGACGGGGTTTTCCCATGTTGGTCAGGCTAGTCTTGAATTCGGACCTCAGGTGATCTG
TTCGCCTCGGCCCTCCCAAAGTGCTGGGATTACAAGGCGTGAACCACTGCACCCGGCGAGG
CATTTTTTACTGTCTACAGAACTTATTGTAATTCATTTTTCTCACTCCAAGTAGTAAG
AATTATACCAAATTGAAAAGATATGAATGAGTATCCTAAAAAAGAAAAAGGGA

Sequence 1717

CCGAGGCNCTGATAAGCCNTGGTAACGGGAAACACAGCTCTAACCTCACCTATTCTCCA
GGTTACAAAGGCCATGTGCCCTTTGAATCTGGCAGAGAAAGTTTCTCGTTGTAAGTAT
TTGCATCTACTTCAAGCCAGATTCTTCTGCCTCTTTCTCCTTTCCAGACCCCTACTCTGT
GCAGTGCTGACCACAGCTAGAGCCACCGCCCCATTGCTCAACCAGTATTTATTTCCCTAA
ACGACCCTTCTCATATTCCCTTCCCTCCACCTCTCCTTACCAAGCACCCAAAAGAGGAT
TTAGAACTAGCAGGGTGGACATCATTCTGGTTGTTTCTACTTTTCTCTGCCTAGCACAAA
ATTGGGAGAAAACCTGGAGCCTCCATCCGCAGTCACACGTGTACAGATCTGGGNGATTGG
ATGTAGGCTTTTTCTAACTTCTCTCTCAGAAGCTTCTACA

Sequence 1718

CGGACGCGTGGGTGCCGCCGCCGCCGTCGCTGTCGTAGTCGCCGCCGCCGCTGCCGGAGA
AAGAGCAGGAGCGGGGAAGCCCCAGAGTGAAATCTAGCATCCTGCCGGCTGGTCTGCCCG
CCCCTCCTTCTTTTCCCCCGGCCCNCTCCCTCCCNCCGCAGGTGCCATCCGTCGCC
ATNCGCCTCTCTACCCTCNATCCCCAGGTGAGGGGGGTGAGTTCAGGAAGCGGNNACCC
CNAGGAACCCANAGGGTCAACATTTGCAGCGCAACATGGCAGGAGCTGGAGGAGGAAT
GATATTCAGTGGCGTTTTTTTTCAGGTGAAAGGAGCAGTATGATGATGATGTAGCAGNAAG
CANGATATNATTTCTACAGTANAATTTAATCNTTTCTGGGAGAAATTCTAGCAACANGAA
GATAAAAGGTGGGTAGAGGTTGTCATTCTTCAACAGGGAGCAGGGAGAAC

Sequence 1719

TABLE 1

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TCCGGCCGGCCAGCGTCATCACCATCGTCAAGTCCACCCCGGGCTCGGGGTCTGGCCCCG
CCCAACGNCCGACCCCGNCCACGGCCCGGCACNGCNGCTCCTAGTGCCCCGCCCGCCA
TGCTCANCCACGCCCCACCGGCCATAGNTNCCCTCCCCAAAGNCGNCTGAGGCGCATG
NCTTCNTGNGACNCAANGNTCCATTNTCTATTGCAGGCAACATGGCCATTCCCCGAAAC
TAAAAAGCAGTTGGGGNNGGNGAAAGTACNANGTGAAAACCCAGNNATCACCGGNANTG
GNGGGAAAACAANGGCCNGNAGGGACACATTTCCAACTTTAAGCTGGGCNAGTGNNTGGG
GAACCAAAAAACCTGGGGNNGNCCCNCTANTGGCANGGCCCNCTGAGNNCNCAGCNCATGN
GCATTTNCAGGGGNGAACCAGNNGGACAAGGGGGACCTCAANAAAAATGNTGNTGGGG
ANGGGCCANTCNCTGGGCNNGGGGAAGAACCCGNATTCTACNAGCAAAAGGGGANGGG
GGGGACNCAGCAAAGGCAATCANGGGAAGAAGGAAGATAAGGGTCNACCANCGGGAATNG
GCAAAGAAANGGGGAA

Sequence 1720

CTGANGCTCGTTTTCTGAAATTAAGCTTCAGAGGGAAGCCCGNGAAACACAGGAGAGCG
AGCGCAAGCCCCACCATACAAGCACATCAAGGTGAATAAGCCTTACGGGAAAGTCCAGA
TCTACACAGCGGATATTTGAGAANTCCCTNAGTGCAACTGCAAGCCACAGATGAGAATC
CTTGTGGCTTTGATTGGAGTGTCTGAACAGGATGCTGATGTTTGAGTGCCACCCGCANG
TGTGTCCCGCGGGCGAGTTCTGCCAGAACCAGTGCTTCACCAAGCGCCAGTNCCCAGAGA
CCAAGATCATCAAGACAGATGGCAAAGGGTGGGGC

Sequence 1721

CATGGCTTCTGCGAGAAAAGTGATTTAGGCAGACGGAGGTTTTTTCTCAATCAGAGGCTT
TCAGTAAGTCTGCTGATGCACAGAGAAGAGACTTCCTCAGCCTGCAGGCTACAAGAGCCA
ACTGTTAGTGCAAAAAAGGACTTTAATACAAATTTCTTATTCCAGAAATTTTGTCCAGG
TCTGGACAAGCTGAGAAATTTATCATTGTTTTTCGAGTTTTTAAGATACCCACTTTTTCT
GAGAGGTATGGGTGTGTGTGCAAGGCACACACATACAGTCTTTCTGTACATGCATGCATA
TTTATGCATGTACAGGGAAGTATCCAGACACCAAATTTTAAATAAATGAATTCCTCAA
GGGGAGTCTTGACCTGAATTAAGGCTGTTGTTTATAGGGAAGCCAGATATAATTGATGNT
GAAAAANAACTAATTTTTATACTTAATCACCGGCAGNTANCGGGGGCANGGGGGAAAAA
GTACAGANGGGGTGTATTTTTTGGTTTTTTCT

Sequence 1722

TCGCCACGCGTCCGCTCTTAACACAGAGTCTGCAGCCCCTAACTGACACCCTGTCTTCC
TCCTAGAAAGTCTGGACTCCCTGGTCAGCAATGTCAACATTGAGCTGCTCAATGCCCTC
CGCTACCATATGGTGGGCAGGCGAGTCTGACTGATGAGCTGAAACACGGCATGACCCTC
ACCTCTATGTACCAGAATTCCAACATCCAGATCCACCACTATCCTAATGGGATTGTAAT
GTGAAGTGTGCCCGGCTGCTGAAAGCCGACCACCATGCAACCAA

Sequence 1723

ATCCGGTTCGCCCCNCGTCCGGGCGGCGGAGGCGGAGGCAGCGGCGGCGGGATGGCGGAC
GCCAACAAGGCCGAGGTGCCCGGGGCCACTGGTGGCGACAGCCCGCACCTGCAGCCCGCA
GAGCCGCCGGGCGAGCCGCGGCGAGAGCCGCACCCCGCGGAGGCGGAGAAGCAGCAGCCG
CAGCACAGCAGCAGCTCCAATGGCGTTAAATGGAGAATGATGAATCAGCAAAAGAAGAG
AAATCTGACTTAAAGGAAAAATCTACAGGAAGTAAGAAGGCCAATAGATTTTCATCCTTAT
TCAAAGACAAGAAT

Sequence 1724

GTCGCCNCGCGTCCGTGCTTTTTTCGACATACTGGTTTTTCTTTCTGTTTTCTTCTCT
TTCTTCTATTTCTTGTGGATATTATGGCTAATAACACAACAAGTTTAGGGAGTCCATGGC
CAGAAAATTTTGGGAGGACCTTATCATGTCTTCACTGTATCCATGGCAATCGGGCTGG
TACTTGGAGGATTTATTTGGGCTGTGTTCAATTTGTCTGTCTCGAAGAAGAAGAGCCAGTG
CTCCCATCTCACAGTGGAGTTCAAGCAGGAGATCTAGGTCTTCTTACACCCACGGCCTCA
ACAGAACTGGATTTTACCGCCACAGTGGCTGTGAACGTCGAAGCAACCTCAGCCTGGCCA
GTCTCACCTTCCAGCGACAAGCTTCCCTGGAACAAGCAAATTCCTTCCAAGAAAATCAA
GTTTCAGAGCTTCTACTTTCCATCCC

Sequence 1725

TABLE 1
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AATNTGCCAGCCTTTATTGAGCTTTACAACCTGATAGTTGGCAGTTAATTCAC
AGTTACAGATAATGCTTTTATTACATAAATATACCAAGTAGTACCCTCTTATTGTATTC
ACTTCATCTATTTTCTTAGAATACTTGCAATTTCTAATGACCCCTTCCCTTTCCCTCCTG
CTGCCCTGTCCACCCTCTTTCCCCTTCTAACATCCTTAGAGGGATGAAATCTCAGCATAT
GTTGCAGGACACCAAAAGGAAGAAAACAATCAAGCAAATAAAATAAACAGTCAAACAAAC
CAGGAGTTTAAACAACAACCCCAACAACAGAAGCCTTGGCAAAGAGGAATGAGTGATCA
GCAAGTGAACACACTCTATGTCAACTCTCCTTTTATCCAGCTGAGATTTTATGGTAACC
TTTAATTTAA

Sequence 1726

CCNCGCGTCCGGAGCCGAGAGTGTGTGGAGCAGTTACAGCTGGAAGACCGGGTCCTCTGC
CTCCACAGTAGATGGCTGAATCCTCTATGCCGGACTGGCAAATGGCACTGTGGTCACCTT
CAACATAAAGAACAACAACGACTTGAGATCTTTGAATGCCATGGCCCTCGGGCAGTCAG
CTGTCTTGCTACAGCTCAGGAAGGTGCCGAAAACCTGCTGGTCTGTTGGGGTCTTATGACTG
CACAATTAGTGTACGCGATGCCCGGAATGGACTGCTCCTCAGAACTCTGGAGGGCCATAG
CAAACCATTCCTTTCATGAAGGTGGTGAATGATCTCGTGTTCAAGTGGCTCCAGTGATCA
GTCAGTCCATGCTCACAACTTCACACTGGTGAGCTCGTGCGGATCTATAAAGGTCACAA
TCATGCAGTGACTGGTGGTGAATATCCTAGGAAAAGTGATGGTGACTGCTTGCCTGG

Sequence 1727

CNCGCGTCCGGATNAATATTTTCATCCCTGAGGTTAACAATTACCATCAAAATGTTTTGT
GGAGACTATGTGCAAGGAACCATCTTCCCAGCTCCCAATTTCAATCCATAATGGATGCC
CAAATGCTAGGAGGAGCACTCCAAGGATTTGACTGTGACAAAGACATGCTGATCAACATT
CTGACTCAGCGCTGCAATGCACAAAGGATGATGATTGCAGAGGCATACCAGAGCATGTAT
GGCCGGGACCTGATTGGGGATATGAGGGAGCAGCTTTCGGATCACTTCAAAGATGTGATG
GCTGGCCTCATGTACCCACCACCACTGTATGATGCTCATGAGCTCTGGCATGCCATGAAG
GGAGTAGGCACTGATGAGAATTGCCTCATTGAAATACTAGCTTCAAGAACAAATGGAGAA
ATTTTCCAG

Sequence 1728

TCGACCACGCTCCGATCCTGGATCTGGAGAGAGAGCTCTCCAAGCAAATCAACGTGTGC
CTCTGAGOCAGATGACGGGGTGGGACCCCGTTAGTAAGGACCGGGCGCCAGTGGCTAA
GGCGGTGCCCTGGTGACCAAGGAGAGCCAGACCTGTTGCTCAGGCCGAGCTCCTGGTTGC
CAGCGAGTTACCACGGGACCAAGTCGCGTGTATGGCTGAGACTCATTCCAGTTTCCAGGG
CCCGGTATTTGGACACTAGTTGCCAAGTCTGGGGCCTGGGGATTTTAGGGACCAGCGGTT
GTGACCATCTTCTGAGCACCAAGGGCTTCCCCTTTTGTGCCCCAAAGGAGTAGTTCTCG
CGCTTGCTAGGCTGGCCTCTCTTGCCCTCCCCTTGGCCGGGGC

Sequence 1729

TCCGAAACACCTGTCATTTTACACAAATGCGTTTTGAATGTCTGAAAGACAGCTCCTGCC
CTTAATTTAGATGTAAACCATTTAGTTTCAAACCTAACCACTGATAAAATCTATCAACAT
TTTATCATGAAGTAGAGCAGATGTCTGTTATTTGATGTCTATGTTATTTGAGTTTACTGT
TTAATAAGTGAATTCATATCAATTAATCCTGCTAACAATTTGACACTTAAGGTGATTCT
GAAAATCCTTTAACTTAAAGTAGATGGAATCTTAAGTATGGGGCCTTTTGTGTCCGTA
AAGAAAACTGCATGCAACAAAATATAGCAGGTCTCACTTGTGAGATTATGGAAT
GTGACTTTAAATGAAATGACATGGCTGGGCATGGTGGCTCACACCTGTAATCAGCACTTT
GGGAGGCCACGGCGGGTGGATCACGAGGTGAGGAGTTCAAGACCAGCCTGGCCAACATGG
T

Sequence 1730

CTGNGAGTTAAATTGGTCCAGAAACAGTTATGACCCTCTTTATACTGCCAAGAAATACGC
AGTCCCAGCCTTGGGAAGCACACTGTGTAGAATTTCTACCAAACATCTTAGGGCAGATAA
TGCCTTTATGTTACTTACTCAGGCTCGATTATTTGATGAACCTCAGCTTGCTAGTCTTTG
TCTAGATACAATAGACAAAAGCACAAATGGATGCAATAAGTGACAGAGGGTTTACTGATAT
TGATATAGATACACTCTGTGCAGTTTTAGAGAGAGACACACTCAGTATTCGAGAAAGTCG
ACTTTTTGGAGCTGTTGTACGCTGGGCAGAAGCAGAATGTCAGAGACAACAATTACCTGT

GACTTTTGGGAATAAAACAAAAGTTCTAGGAAAAGCACTTTCCTTAATCCCGGTTCCAC
TGATGACAATTGAGG
Sequence 1731
ACCCCGCGTCCGAGCAGCCTCCAGTTGCCCTACTTAGTGGCTTGCCCTCTGCCTGCCTC
AGCTGCTGCCTGACCGGCTGGGGGAGGCACTGGCGGGAGGCCTCGGGCTCCCCTGGAAGG
GCGCTGGGCTGGCGGGTCAGCTGGTGGTTCTTAGGTTTCCTTCTGTTTGTAAAGGGAC
AATGTGGCCACTTCTCTGTGGAAGGGAGTTGGTTGGGGGGTTGAGATGGCCCGTGTTC
TAACTCAGTTTCCTGTTTTGCACGATGTAAAACCTGTCTTTTGCACGATACAGCCAA
AAGTATTGGCTGATTTCTTGCTGAGTGCCCTCTTAGTTGGTGTGTGAGGTCTTGGTGGGC
TCAGGCCAGCTGTTTGCGAGTGTGGGAACTCATAGGTTCTGTCTTTGTCTCTTCTTCA
CCTCATTCTGGTAGCAGCATAAAGGTTAGGCAATCACTGGGACCC
Sequence 1732
GCAAATCATACATTGCATTCCCCAAAGCATCTGAACGTACTTCTAGAAAACAAACCAACC
AAAAGGGAAAATATGCATGCTTTTTGTAATTAAGTGGTGTGTTGAAAATCTTTTTAAGG
GAGAAAATCTCAACCAAGTTATGCTCATCCAGACAAGCTGACCTTGGAGTAATTTCA
GCACAACTCATTCTTCAGTGCCTCATGACTGAAAAACAAAAACAAAAAGAAAGCATCT
TCNCAATGAAGCTCCANATAGCACCGTTTTGCTAAAAGATACATTCTCATTGTTTTCCA
ACAGNGATGGCTTCCACATAANGGTTAAACAACTGGGNGCTTGGAATAATTTNTNACN
GGTTACTTNTTCGATTTTTTNGAACNAAGGAAANGGGATTCCCTTTTTTAGGGGGGAA
GAATTGNGGNCAAGTTTAAAAAAAAAAAAAAAAAAAAAAAAA
Sequence 1733
CGCGTCCGAATTTAGGAAGACCCCGGCGACCTGTTCCTACCCCCGCTTCGCCCTCACAC
TTTCGGGATGTCTGCGATTCTGCTGAGGAGAGCGACCAGCTGCTGATCCGACCCCTTGG
AGCTGGGCAAGAAGTAGGAAGATCATGTATTATTCTCGAGTTCAAAGGAAGAAAAATAAT
GCTCGACTGTGGGATCCACCCTGGCCTAGAAGGAATGGATGCTCTTCCTTATATTGATT
AATTGGACCCACCTTGAATTGNACCTCCNANTAANTNANNNCATTTTCATTTTGAANC
NTGGGGGGGNCNTNNCCCCNNGGTTTTTCNNAAAAANNCCCCCTTNAANGNNAAAAAATT
TTTTNTTTTTNTCCANAAAAAATTTTTTTTNAAAANNCCCNCTNNTNTNAGGGGNTNT
TNAAAAAATTNCCCAAAAAAANNNNCCCCCTTTNTNTNTTTTTNAAAAAAAAAAAAAAAA
AAAAANATNGNCCCCNNAATTTTTTTTTATATTTTNANNAAAAANAANNTNTTTTTTN
AAAAAANTNTATNTTTTTTTCNNTNANNNNGTGNNNNCCCNNTTTTTTTTTTT
Sequence 1734
CCACGCGTCCGCTCCCGCCAGGCGCTTTCTCGACGCCTTGCCAGCGGGCCGCCGACC
CCCTGCACCATGGACCCCGCTCGCCCCCTGGGGCTGTGATTCTGCTGCTTTTCTGACG
GAGGCTGCACTGGGCGATGCTGCTCAGGAGCCAACAGGAAATAACGCGGAGATCTGTCTC
CTGCCCTAGACTACGGACCCTGCCGGGCCCTACTTCTCCGTTACTACTACGACAGGTAC
ACGCAGAGCTGCGGCCAGTTCTGTACGGGGGCTGCGAGGGCAACGCCAACAATTTTAC
ACCTTGGGAAGGTTTGCNACNATTCTTTGTTGGANGANTAAAAAAGGTTCCCAAAATT
TTCCCNCTTTNAAAAGANNNTNGNGACNNNCACTNGGGGGGGGGCCCCAAAAAAAATT
TTTTTTNTTAANNCCCCCCCCGGGNGNGNAAAAANTTTTTTTTGGGGGGGGNCCCCCCC
NNGGGNNAAAAANNNTTTTANAAAAAATTTTTTTTTTTNTTTTTTCCCCAAAAAAAATTT
T
Sequence 1735
GCGTCCGAAAATACAATACACGGAATCTTTGAGGCCCTGTAATTGGAATGAGTCCACTT
TAAATCCTTTAACGAGGATCCATTGGAGGGCACTTCCAGAATACCTCCTCCCCAGCGCC
CGCTGCCAGCCCCACACCAGGTGTGAGAACCAAGGTCTGGTGGAGGCAGCTCCAGGCACT
GCCAGTCCGACACAACCTGCAAAAATCCATTAGAGCCACTGCCCCAGAGATG
Sequence 1736
CGAACCTCCTGTTTCCAAGTGGGAGACATGGTGTGTCGGAGCTAGCGGCGCGCCTCAAC
TGCGCCGAGTACAAGAACTGGGTGAAGGCGGGCACTGCCTGCTACTGCTTGCGCAGCTG
NCTGCAGGGTTTCGTCGNCCGCGNAGGTGCTCTCCTTTCCACCCGCGGCCTACTCGCCGCA

TABLE 1
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GCCCCCGGC

Sequence 1737

ATCCTTTTGCCTAAAGATGTAACAAAACCTCAAGACAGAAGGAATCAGGGAATATGTGCT
NTTGTGNGCATCTTGTTTACATTTNGGGATCAANTGATGGCAAAGAAGTAATGAGACCA
CTNNAAATTGTTTTNCANTTGNNTTTAAANACCAGGGTTCCTCATTTTCTTTGATTTTG
NAAGTTTTAACAATTGACCTTCTTAAGNGACATTCTCTTCAAAAAAGANANGTAAANCA
GGNGAAATGAAGGGTGGNTGGGGAAA

Sequence 1738

CCGGCTCATTCCTGAGGCCGGCCCGCTCCCGTCAGGGCGCCGCGCGGGGTTAGCGCGG
GGTCAGCGGAGGTGAGCGGGGGTCAGCAGCAGCGGCTCCGAGGGCGCGGCGGACGCAGGA
TGACACGCTGCTGTCGGGCTTGACAAGTACATGTTTCAGAAGGACGAGTACTGCATCC
TGATCCTGGGCCTGGACAATGCTGGGAAGACGACCTTCCTGGAGCAGTCGAAAACCCGAT
TT

Sequence 1739

GTCCGNCCACGCGTCCGATTTCTTGTGTGCTTTGAAAAAGTTTCAGCTTGCTGTCTCTT
TLAGTGTTTTAAAGAAGTGTTATACAAAGCATTGTTTGCAAATATAGGGAGGATAATGG
GAGTCCCACCTTAANTTNGGGAANTCNTTGGGNGANCTTNTTATCCAAGGTTTANTCAA
GCCTTCNTTTTCCAACTTTTAAAAATTTTTGTTAAAAAGCCACCCTTTGCTTTANGA
AAAAATTTTTAAAAATTTTTANTGTTCTTGCNACCAAATTTGTTCTTNAAAAAATAATA
AAAACCTTGNTGGCAAATTCNTTTGGTCNNTTTAAAAA

Sequence 1740

ACGCGTCCGCAGCCATCTTGGGATCTGGGCAAGTGAGCGAGCTCCTTCCTCACCAGGCTG
ACTAGCCTCTCCTTTCCCTGTCCCCCTCCATCGCTGCTCTGCAGGAAGCCAGCCCCCAGG
GCCAGTCCCGGAGGGGCTGATCCGCATCTACAGCATGAGGTTCTGCCCTATTCTCACAG
GACCCGCCTCGTCTCAAGGCCAAAGACATCAGACATGAAGTGGTCAACATTAACTGAG
AAACAAGCCTGAATGGTACTATACAAAGCACCTTTTGGCCACATTCTGTCTGGAGAC
CAGCCAATGTCAACTGATCTATGAATCTGTTATTGCTTGTGAGTACCTGGATGATGCTTA
TCCAGGAAGGAAGCTGTTTCCATATGACCCTTATGAACGAGCTCGCCAAAAGATGTTATT
GGAGCT

Sequence 1741

CANCGCCCCGCCGNTCAAGCAGCNTAATAAAGCTCATANAGGCGGACNNGGCATCNGGG
TCTNGGGATCTGCACAGCGGACTGGCATAGGGCCGTCTGGCACTGAAAACCCTAANCAA
GAAGGTGTGAAAAGAACTTNAGCNGANNCGACCNGAGGCATCNNGCCAGCCAGCTCCG
AAAGCAGAAGANGGAGGCGGTTCTGGCATGAGAAAGANACAGCTGGGCTGGCNAGGATAG
GCCCCCTCCTTCATCAAGGTAAGTGGTGGTGGCCCTGCACAGNANAATTNTNCCTGCCAGAG
GCCATGCANCCTGCTTCAAGATAGGGACACTGGAACAGATACACTTGAATGAATTGGGGA
AACACCCCAAGACTTTT

Sequence 1742

CACGCGTCCGTTTTTNCAGGGTCTATTGTTTCGATTAGTTTCCTTGCAGGAGGTAGAA
GGTTTCCTCCATCCCGAGTAATTCATAGAGTGTGTTGGCTTGNCTACCTTCCTCCTGACTG
AAGTCACCTGATACTTTTTGTTTTTCAAGAAGGAAGAGAGAACCCTGTTGCCTCAGTTA
CTAGCAATGATACAATTCTCAAAATCTGGTCTTTTTTGTTCCTTTGAAATAGTTTCTCC
ATGTTGTGTGACACAGCAGCCCTGTCTTATCATAGTTGTCTTCCCTCCACCACCTGTAC
CAGAGATGTTGGATATGTTGGAGGTGAAGGTGTGCAAGGTTTTAACTAACTGTTCTAAT
TAAAGGATTCTGCAGGAAAGAACATGGGTTTACAAAAGAGAAGCTTTTGATTATTAGTA
ATTTTTTTCTTTGATGAATTTATGTGCTTAGTTTGGAGAATCGAGAGTTGGCTGGGAAA
AGATTTCTGAGGAGTTAAGGGACTCTGGTGCTGTTTGGGAA

Sequence 1743

GTGATTAGAAGTAAGCGNTGATGAGGCTGAAGAAAAGGAAGACAAAACCTGAGTACTTGGA
GGAACGAAGAGTAATGGGATATCCAATAAACTGAGAATGTTTCTTCACAATCTCCTTTAT
TCTTCGTTCCCTCAAGTACTCAGTTTGGTCTTCTTTCAGGTGTAGGAACGTGATAAAGAA

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GTAAGCGATGATGAGGCTGAAGAAAAGGAAGACAAAGAAGAAGAAAAAAAAAAAAAAAAAAGG

Sequence 1744

CGATTTCTTTGTTGGACAACCCAGCTGGGGCTAGGAATGGTTCAGAAGGTTTAAGGCCGG
AANGGGNAATGAAGGGGCCCCGGCGCTAACCTCTAGGGACCTGTTTGTCTCTGTTTAAA
CCAAATGGGCAGTCTGTCATTACACACACCCTGNGTCTTCATATGTGGCTCGCCAGTATA
ATGGAATGTGCTTACAAGGGCCAGCAGGAGTGCCTGGTCGAGACGGGAGCCCTGGGGCCA
ATGGCATTCCGGGTACACCTGGGATCCAGGTCGGGATGGATTCAAAGGAGAAAAGGGGG
AATGTCTGAGGGAAAGCTTTNAGGAGTCTGGACACCCAACACAAGCAGTGTTTCATGGA
GTTTCATTGAATTATGGCATANATCTTGGGAAAANTGCGGAGTGACATTTACAAANATGC
TTTTCAAATAGTTGCTNTAANANTTTTGTTCAG

Sequence 1745

GGACGCGTGGGTGGAAATGTAAACAAGAATAGACTGTTTCATTCCCTGATGGCTTTTAGTCT
ATACTAACATATTGTTTGTATGGCATCCGAGACTGAAAAGACCCATGCTTTACTGCAGA
CTTGTAGCACTGAATCTCTTATTTCCAGCCTTGGGTCTGGGGGCATTTTGCCTCGTAGCT
GACAGACTTCTTCAGTTTTCCACAATTACAGCAAAATGACTGGCTTCGTGCTCTCTCAGAT
AATGCAGTACATTGTGTAATTGGCATGTGGTCATGGGCGGTAGTCACTGGAATCAAGAAG
AAGACTGACTTTGGAGAAATCATTTTAGCTGGATTTTTAGCCTCTGTTATTGATGTAGAC
CACTTTTTTCTAGCTGGATCCATGTCTTTAAAGGCTGCTTTGACTCTCCCGCGAAGACCT
TTCTTCACTGTTCTACTGTGATTCCCGTTGTGGTTCTGACCCTGAAATTTACTATGCAC
CTTTTCAAGCTCAAAGACTCATGGTGCTTTCTTCTGGGATGGTATTTATATCC

Sequence 1746

GTGAACAGGNTATTGACTATGGTAACTTATTTTATTGAAGTTTTCAACCGGAAAAATAGT
AAGTGAATATGATACAACTGTTATTTTCAAGACATATTTCTTAGGGCTATTTAAATA
ACCTTTTTAAAGGGCAAAACTTTCAATTTGAGAGAACAAATTCCTCTCCTCTGTGGGAA
ATATTGGCTGAGATTTGTATAGAATAAGAGACATGTATGTAACATATATTTATATTAG
CATAAGTCTACTGCAATCATGTACACATCTTAGCAAGACGAGAGGATTTTGTTAGTCTT
TGTTTATGACTTCTACAGTTTCTGTATCTAGTGTTAAGTTGTAAGGAAAAACTAAACAT
GCAATTTAAAGGTAACTTGATAACTATTTATGGAACATAAGCATACACCAATGGTTATT
TCTCACAGTTTTCATGCGCATTTGTTTATTGTTTACTTGGATTAGGCTCATTAAAAACCA
TAATGCTGGTCAACAATTAGAATGCTAATATTTGGGGAAGCTATGCAGAAAATATTT

Sequence 1747

CNTGTGTGCCATGTATACCTAACGGGAGTCCCAGAAGACAGGAGAGAGAAAAAAGAAAGAA
ATAAAAAGAATATTTGAATTTAAATTTGCTTGAAATGTCTCAAATTTGATGAAAAATAT
TACTCTGCACATTCAACCCATGAACATAAGTTGTATAAAATCAAAAAGTTTCACACCAA
GGCGTGTCTAGCCAACTGTCAAAGCCAAAGACACAGAATCTTGAAAGCAGTGAGAGC
AAAGCAGACAAGGGATCCCCAATAGGATTAACAGCAGATTTCTCATCAGAAGCCATGCAA
GCCAGAAGGCTATGGGAGACATACTCAAATGCTGAAATAAAAGACTGTCAACAAACATT
TCCACATCCAGCAAAAATCAAAAACGAAGGAGAAATCTGTTGCATGTGAGCTGAATAGAA
TTTGATTCTGCTGTTGTTGGATTGAAGTATCTTTAAATGTCAATTANATCAATTTG

Sequence 1748

CGATGGCAATACATGTACTCAGATAGTTACATCCCTATATAAAAAGTATGTTTACATTTA
AAAAATTAGTAGATAACTTCTTTCTTTCAAGTGCACAATTTCAATTTGACTTGAGTCAA
CTTTTGTGTTTGGAAACAAATTAAGTAAGGGAGCTGCCAATCCTGTCTGATATTTCTTGAG
GCTGCCCTCTATCATTTTATCTTTCCCATGGGCAGAGATGTTGTAAGTGGGATTCTTAAT
ATCACCATTCTTGGGACTGGTATACATAAGGCAGCCGTGAAACTGGAAAGTCATTTTGT
GACTGATGTGATACATCCAGAGGTAAATGCATTTAAACATATTTAAAGTATTTGCCAAAG
ATACAATTTTCTTGCTGACATAAAAATCACACAAACAAGTCCCCCCCAAACCACAACGT
CTCTCAAATAGCTTAAAAAATGAAAAACATTTTAGGATTTTCAAGTTTTCTAGATTTT
AAAAAGATGTTCAAGCTATTAGAGGGAATGGTAA

Sequence 1749

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GCCCNCCCCGACCCTCCAGCTCATGGTGTCTGGGGCCTGCGGCTAGACTCTTGGAACATT
CTGGAACTCTCTCCTTTCTGGCTGGGGCTCTGACCACAACTCCCCTCCAGGCTGCCCC
TGGGACATGGTGGTGATGTGGGTGCAGGAGCCAGTGTCTGTTGTCGGGACTCGCAAGTGC
CCTCATCACAGCCACCCCCACCACGAGTGTCTCCCCAGTGCAGACTCAAGTTATGCTTGA
AATGAAAAAGTCTATCTGCTAGTGGGTAAACGTAGACCTGGCACTGTTCCACGCGGGCGC
CCCAAGCCTGCCACTCCTGTGTCCCTGCCTCCCTGGGCTCCCGAGATAGGCACCACTGTA
TCCTCCAGCTCCTTCCTTCCTTCCCCCAGGAACACGGAGGCCACCGAGGGGGCTGGGCCT
ATCAGGAGGACACAGGCTGCAGCCTGGCACCCACCCCTCCATCTTCACCCACATGGAAG
ACTTGTCTTCAAC

Sequence 1750

GCGTCCGGATTCTAAAAAATAAAAAAAAAAAAAAAAAAATTAATTGGGGTGCCTTTTTG
TTATAGTTTCTATTTTCTGTTTTGTAGGACAAGCTGCATTTTCTGTAAATATAGGTCTGG
ACTAAAGGATACATAAAGAATGCACAAATGTCAACATCAGCAGAGATGCCAGATCTAT
TTATCTCTAAGTATATTTGAAGTGATTGCTGNTTATATGTTGTCATTTTAAATTTGTGTG
TCAGTAAAGCTACCTGTAAAAATTCAGTCCAAAAAATAAAGCTCTCAGGGAGACATGA
ATAAAATCAATGAACATTAGAAAATAAAATATAGATGCTTACCATTAACTACCAACTCT
TAATATCCTTAAATTATGTGATATATAAAGAGGACTGTTACTTTTTACTTTCTTTTTT
TTTTTTTTGGCTTTGCTTTATTTATTTGGAGT

Sequence 1751

GGGCATGCTCATAGGCACAGCTGTTGGTCAGTATGCCAATAACATCACACTTTGGATCTT
TGCAGTCACTGCAGGCATGTTCTCTATGTAGCCTTGGTGGATATGCTTCCAGAAATGTT
GCATGGTGATGGTGACAATGAAGAACATGGCTTTTGTCTGTGGGGCAATTCATCCTTCA
GAATTTAGGATTGCTCTTTGGATTGGCATTATGCTGGTGATTGCCCTCTATGAAGATAA
AATTGTGTTTGACATCCAGTTTTGACCTTTCCAGTAATCACTGTTGATTACGAGAATGT
TACCATGCAGCTTTCATCTGTTCCCTGTACTGTATGCACATTGCTCAAAGGAAAGTCAG
TGGCTTGCACACTTACAAGTTTCATAGATTTGAGCCTAACCAAGAGGCTGGTGCTTA
GTA CTGTTTTCCCTGCACGTAGGGGTCTTTTAAAAATATAAAGCTTGTGATAAAGAGAGG
A

Sequence 1752

CTGGTTCAGCAGCCGCCCCACCCACCTCTGAGTCTGACCTGGAACCTGCCACAGATGGGCC
AGCCTCCGAGACCACTACCTCAGCCCAGAGGCCACCACTTTAATGACACCAGAATCCC
TGATGCAGCTGGTGGCACGGCGCGGTGGGTACCATGCTTCTGTCTTTGGGATCATCAC
GGTGATAGGCCTGGCTGTGGCCTTGGTTTTGTACATCAGGAAGAAGAAGAGGCTGGAGAA
GCTACGCCACCAGCTCATGCCATGTACAACCTTCGACCCACGAGGAACAAGATGAGTT
GGAGCAGGAGCTGCTGGAGCATGGGCGGGACGCCGCTCTGTACAGGCTGCTACTTCTGT
GCAGGCCATGCAGGGCAAGACTACTCTGCCCTCCAGGGCCCACTCCAGAGACCCAGCCG
GCTTGGTGTTTACCCGATGTGGCCAATGCCATCCATGTGTGAGTGGCCTGGGACAAGC

Sequence 1753

GTCGCCCCGCGTCCGGTGCTCTCATGTCTCATCTCAGAGTTCAGCTTATCAGAGGCATGTA
GCAGGGAGGCTTATTCAGCCATAACTGGGCTCTACCTCCAGCCTCCAGAAGTAATCCCC
AACCTGCATATCCTTGGGCAACCCGAAGAATGAAAGAAGAAGCTATAAAACCCCTTTGA
AAGCTTTCATGAAGCAGAGGAGGATGGGTCTGAACGACTTTATTCAGAAGATTGCCAATA
ACTCCTATGCATGCAAACACCCCTGAAGTTCAGTCCATCTTGAAGATCTCCCAACCTCAGG
AGCCTGAGCTTATGAATGCCAACCCTTCTCCTCCACCAAGTCCTTCTCAGCAAATCAACC
TTGGCCCGTCGTCCAATCCTCATGCTAAACCATCTGACTTTCACCTTCTTGAAAGTGATCG
GAAAGGGCAGTTTTGGAAAGGTTCTTCTAGCAAGACACAAGGCA

Sequence 1754

TCGCCCCGCGTCCGGACTGATCATAAACCATGCTGGTATTGCACCTTCTGGAACATATGGG
CTTGAGAAAACCCCAAGGATCACTTCTCCTTGGCTTCTTATTTCTTGAGGCAGGTGCG
ACGTTCTACCTGCCAAGACGTGTGATATCAGCTTCTCAGATCCAGACGACCTCCTCAAC
TTCAAGCTGGTCATCTTGTCTGATGAGGGCTTCTACAAGAGTGGGAAGTTTGTGTTTCA

TABLE 1
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TTTTAAGGTGGGCCAGGGTTACCCGCATGATCCCCCAAGGTGAAGTGTGAGACAATGGT
CTATCACCCCAACATTGACCTNGNGGGCAACCGTCTNGCCTCAACATCCTTCAGGAGAGG
ACTGGAAGCCAGTCCTTACNATANACTCCATAAATTTTATTGGGCCTTGCNNGTATTCT
TTTTTTNTTTGNGAGCNCCAAACCCCNNGANGGACCCCCACTTGGAACCNAAGGGAGGGC
NCGCAAGAAGGGTTCTTGGAAGAAACAAACCCGG

Sequence 1755

TCCGGCCCCGCCACCCGCCGCCAGCTACCATGGATGATGATATCGCCGCGCTCGTNTGTC
GACAACGGCTCCGGCATGTGCANGGCCGGCTACGCGGGCGANGATGCCCCNCGGNCCGTT
TTCCCTCATCGTGGGGCGCCCCANGCNCCAGNTGCGTGATGGTGGGCATGGGTGAGAAGG
ATTTCTATGTGGGCGACGAGGNCCAGAGCAATGAGAGGCATNCTNACCCTGNATTACCCC
ATCAGAGCACGGCATNTNTCACTACTGGGACCGACATTGGAGAAAATCTGGCACCACAC
CTTTCTACAATGAGCTGCGTGTGGCTCCCGAGGAGCACCCCGTGCTGCTTGACCGAGGGC
CCCCTGAACCCCAANGNCAACCCGNCGAGAANGATNACCCCAAGATNCATGTTTTGAGGA
CCCTTTTCAACACCCCAAGCCCATGGTTACCGTTTGCCT

Sequence 1756

GCGNNGGGGCCGGGGCTGGGGTCCGGGCCAGGGGTCCGGCCGGNGGCGGNNGACGGGCGTN
CGGTGCCTGGGCTCTCTCCGCTCCCTGAGGCGCCGCTGGGGAGTGAACCTGATGATGG
GACCTGTGAATTCAGCGGGGTGCCAAGTCGTTTTCTGTGTGGGTTGAGAGACAGGCTGNG
CAGCCCACTGTTGCATAGGACTAACTACTACAAATCATGCTGAGACCGAGCTATTTTTGC
TGCTTAGAGGCTTTGCAGCCTTGAGAGGAATTTTGTGTCAGGAGAATAAAAGGAGGTTG
TCCATNATTGACTTTAAGCAGCAATCAAGTAAACATTGAGCTCTTNAGCTCCGCCTTTC
TTGCTCTGAAAATTGAAAACCAANAAGGTTTTGNTGTTATTGTGTGACCCACCTGAAT
TATAACCAAGATGAACATAACCAAGGTGGTCTNNGTGTTGTTTTTCAGCAAAAC

Sequence 1757

GGATCTACCANGTGTCTNGAGCAGCAGGAGAGAGCCTTCACGCTGGGGCTAGCAGGACTT
CTCGGCGAGGGAGNNTTTAACTTTGGAGAACTNCTCATGCACCCTGTGCTGGAGTTCCTG
AGGAATACTGACCGGNAGTGGCTGNTTGACACCCTCTATGCCTTCAACAGTGGCAACGTT
GAGGCTGGTTCAGACTCTGAAGACTGCCTGGGGCCAGCAGCCTGATTTTAGCANCTAAT
GAAAGCCCAGCCTTCTTGAGGAAACATTTAGTTTTGTTTGTGCTCATTGAGNAGATGAC
TTTTACACCGACCTTGCCNATTGAGAGACANACTTNACTTTTTTGAAGGAAAATTG
CCAAAAAGTTGGCCTAAAAAATCNACAGGTTGAAATGGAAGGTGNGAAGNCTTTTCT
GGGGTGGATTGAAAANGGGCACCTTTTTCGGNTNNGGGGGCNTGGGT

Sequence 1758

GAGCCGGCTGGCTCGAGTGGCCTTCGTGCTCCCTTGGCGCCCTGGGAGAGTCGCTGACGG
GTGGACTGACGGACCGCCTGAGGACGGCCGGCCAGGGCGGTGAAAGCGCCAGCCCTATGG
CGCGGGTTCGAGTGAGGCGGAAGGCCGAGGACGGCCGGCGGCGGCCGCCCGCCCGGCGAT
GCGGGCCCCGCCCGTGCCTNAGGTGCCATTTGGATTGTACTTTAGTGGCACCGATGTAC
TCTGAGTGGAGGTCACTGCATTTGGTGATTGAGAATGATCAAGGCCATACCAGTGTGCTG
CACAGCTATCCAAAGAGCGTTNGACGAGAGGTGGCAAATGCTGTAAGTCCGGCCTCTTGG
GCAGGTGTTAAGTACCCCTCAGTGGCTGGTAGTGAGAATTTGTTAAAACTGACAAAAG
AAGTA

Sequence 1759

GTCGACCACGCGTCCGGTCTCGGCGCCCGCTGCCCTCTACCGCCCCACGCAGGATCCCG
GCCTGGTCACCGGGCAGTGTGATGCTTCCGACTGCCGCGGGGACAGCGAGGCACACACA
GGGCTTGGGCCGCGCCGGAGGCCACACGGCCTGGCTGAGTTGCTCCTGGTCTCCCGCCTC
TCCAGGCGACCCGGAGGTAGCATTTCCAGGAGGCACGGGCCCCCCCCAGGGGGATGGGC
ACAGCCACGCCAGATGGACGAGAAGACCAAGAAAGCAGAGGAAATGGCCCTGAGCCTCAC
CCGAGCAGTGGCGGGCGGGGATGAACAGGTGAAGCAATGAAGTGTGCCATCTGGCTGGCAGA
GCAACGGGTGCCCTGAGTGTGCAACTGAAGCCTTGAGGTCTCCCAACGCAGGACATCA
GATTCCTCATGGTGCAAAATGGCCATTCCAAGCTTCCATCCAGCCATCACATCACAGGAG
GAAGGGAAGA

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Sequence 1760

CCGATGTCTACAAGCTCGTCAAAGACTAGGGTGCCCTCTGCGCCTCCTTAAGGATGCAGG
GTGAGCATCTCCTCTCCACACCTGCCTGGCACCCCTGGGGGGGTCCAGGATTGAGGATTC
ATCTACCTGCCAGGCCTCAGGCCCAGGACCCAGGAGGCCTCCCCACCTACCCCAGCACAC
ACACTCCCTGCCACTGTTCTGCGCTTTAATTGTGGGAGAAGAGAGGAGAGGAGGGCTCAG
CGGTGGGGCAGCCTGTCCGGGGCGCTGACCCACCATCACCTGCTCTGCCAGCCTCGCG
TGACCTCAGAGAGGTGGGGATAGGGGACACCTTCAGCCTCCAGCATGTGTGGCCACTTGT
ACCCCCACCCACCCCTTGGGGGAGCATGATGGGCAGGTTGAGGGGCAGGATGGAGACCAAG
GGGAANTCAGTGAGCAGNAGGCCCTGGGGAAGTGTCCGGTCGGGGTTGACTTGAGGGAC
AGAGGGGCCCAACACTTTCTTGCCCCTTTTG

Sequence 1761

CCGCCAGGCCACCACCATCACACCGCCTCTGGCCGNCACCCCATCTTNCACCTGTGCCCT
CACCACCACACTACACAGCACACCAGCCGCTGNAGGGCTCCCATGGGCTGAGTGGGGAAG
CAGCTTTNCCCTGGCCTCAGTTCCCAAGCTAACTGCCACGTCCACCCACGCATACACACA
TGCCCTCCTGGACAAGGCTAACATNCCACTTAGCCAGCACCCCTGCACCTGCTGACGTCCC
CACNTCCCTTGGTTGGTGGGGACATTGCTTCTCTGGGGCTTTTTGGAATTGGGGGGCGCC
CTTCTCTGCTCCTTTCACTGGTTAGNCTCTGGCTACCNATAAGCANGAGGCCNTGGGAAG
GGGTTTCTCCCTGGGCCCTTAAAAAAGGNGGGCCCCAAAGC

Sequence 1762

AGTCGACCCCGCGTCCGGCAAGCGGGACCGGTAGGGGGCCGGAGCATGCGGCGGCGGCGCT
CGGACTGTCCCATCCGCCCGTATTGAGGCGCTGGGAGCGGCGGGGCGACAGGAAAGCGA
TGGTGAAAGCGGGGCGGTGAGGGGGGCGAGNGCCGGGAGCCGGACCCGCGAGTAGCGGCAG
CAGCGGCGCGCGCTCCAGAGTTCAGACCCAGGAAGCGGCCGGGAGGGCAGGAGCGAATC
GGGCCGCCCGCCCATGGAGCTGAGAGTCGGGAACAGGTACCGGCTGGGCCGGAAGATCG
GCAGCGGCTCCTTCGGAGACATCTATCTCGGTACCGGACATTGCTGCAGGAGAAGAGGTT
GCCA

Sequence 1763

CGCGTCCGGGGTGATTTGAGCTCATCTTGTTGAGCAAGGGGAGTGAAACCACAGAACTG
TTAAATTGAACGTAAATAACTTTGGAAAACAGTTTGGACACTAGAACAAGGTCGCTTCTC
TTTTCTCTTCTCTCCCAACCTGTTAACCTAGTGCTAGATAGTCAGCTGCTGTTGCAGGT
AGAAAAGCTCACCAATGCCACATTTGTATCTGTTCAACCTGTTTGGACCTCCCAGGC
ATCTGAACAGGATGACATCATCTTATTATCTTACTTTACACATACGTGTATGTACACA
CACACACACAATACAAGACATTTTCTGTTTTAGAAAATATAGCCCTTGGTTGGATTAC
TGCTGTCTGAGCACTAGAAATTTCTAATGGAAAGAGGCCTCTGAATGGCTAAGGGAACAT
CTGGAAGGAAGGAAAATGAGCCTNAAGGTTTTTGGTGCTTGGTTTTTGGTTCTTTTTCT
TTCNTGGTTCCTTTTTTGGTTT

Sequence 1764

AGTCGACCCCGCGTCCGCGGACGCGTGGGCGGACGCGTGGGGGCCCTCCGGGAAGATGGC
GGCCGTGCAGGCGGCCGAGGTGAAAGTGGATGGCAGCGAGCCGAACTGAGCAAGAAGTG
GTGGTAATCATTAGTTCAGGGTGCTCTGCCATGTTGACGCAAGCTGCTGTAAGGCTTGT
TAGGGGGTCCCTGCGCAAAACCTCCTGGGCAGAGTGGGGTCACAGGGAAGTGCAGCTGGG
TCAACTTGCTCCTTTCACAGCGCCTCACAAGGACAAGTCATTTTCTGATCAAAGAAGTGA
GCTGAAGAGACGCCTGAAAGCTGAGAAGAAAAGTAGCAGAGAAGGAGGCCAAACAGAAAGA
GCTCAGTGAGAAACAGCTAAGCCAAGCCACTGCTGCTGCCACCAACCACACCACTGATAA
TGGTGTGGGTCTGAGGAAGAGAGCCGTGGACCCAAATCAATACTACAAAATCCCGCAGT
CAAGCAATTCATCAGCTGAAGGTCAATGGGGAA

Sequence 1765

TCACCCCGCGTCCGACTTGAATCCCGTCAGCTTAAACTTGTGTAAGGGAATCCTGACTT
TTAAATGTGAGGGTATTTGGATCTGTGTTGAAAGTCGTATATTTTATCTGTGCGGTGC
TGAGTCAGGCCACCACTCCTAAATAGAGGTTCCCTATATGCGCGTATGACATGGTGAA
TAAACACAACCTCTCTCACTCAGGACATCCGGAGCGTTATGGACCGTGGTAGGTGGTCGT

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TCTGTGTGCTTGTGAAAGTGTCCAGGCGTGTGCACAGCCAGTGCGCCCACTTCCGGGCTC
CTTGCTCCCTGCTGTAAGTTTTGGATTTTGCATCCAATCCTGTGTGCCTGCCCTTC
T

Sequence 1766

GTCGACCACGCGTCCGGCTCCCGAGCCTGGAGAGCTCGGACTGCGAGTCCCTGGACAGCA
GCAACAGTGGCTTCGGGCGGAGGAAGACACGGCTTACCTGGATGGGGTGTGTTGCCCG
ACTTCGAGCTGCTCAGTGACCCTGAGGATGAACACTTGTGTGCCAACCTGATGCAGCTGC
TGCAGGAGAGCCTGGCCAGGCGCGGCTGGGCTCTCGACGCCCTGCGCGCCTGCTGATGC
CTAGCCAGTTGGTAAGCCAGGTGGGCAAGAACTACTGCGCCTGGCCTACAGCGAGCCGT
GCGGCCTGCGGGGGGCGCTGCTGGACGTCTGCGTGGAGCAGGGCAAGAGCTGCCACAGCG
TGGGCCAGCTGGCACTCGACCCAGCCTGGTTGCCACCTTCCAGCTGACCCTCGTGCTG
CGCCTGGACTCAGACTCTGGCCCAAGAT

Sequence 1767

CCGGAAGAGTGCTTTATTGTGAAATTATTTAAACTGTCCTTTAAAAGAAAAAGAGGAAA
CGATGAACAAAACTAATCTAATTGCCAAGTTAGAATTCATNATTTAATTTACCTCCTAT
GCAATGATTAATGCTGCAAAATGTATGGTTATGTTACCGTATATTCACAAAAGAAATATT
ATTACAAGGTTTCAGAGGTAGCCAATTGCATTCTTTTGGAAATTTACTGTACTGTTTCAA
TGTGTTAAGTGCCCTTGTGTAAAGTAAATTTAAGTCTAGATTCAATATTTTCTGACA
TATATTTTTCATTATGATATCTACTGTATGCTATTGTGATAGTTTTATGAAATGCTTACA
TTTTAATCAAATATGTAAATTTGAGAAGCTCTTTTTCTACCCACCAGTACCTTAATCA
TTTGTTTTATCACATTGGATTCAAATTCAGGTTCCCTTTTTTGATAAGAGGAAATTTGTT
T

Sequence 1768

CCGGTGGGATAGTAAAAGAGAAGACGCGGAGAAGAGGAGAGGACCTACAAGAACGGAGGA
CAGGGGCGCACGATGGTCCCGGGGGGAGCGGAAACAAAGGNACGAAAACGGAAAAGCGT
GTGTAGGGGAGCGGAAAAGGAAGGTCACCACCTGTGGCCTGCGACCGAAATGGCGAAAAG
TCTTTTGAAGACAGCCTCTCTGTCTGGAAGGACAAAATNTGCTACATCAAACAGGATTG
GTCACTTTTATAGTACATCCCATGGTATGTTTATGNAGGGAAGGAAGTGNAAAANNAACA
CCTTCAGCAGTTTTCTGGNTGGNATTCATTGNACCTNTNAGNAAGGGAAGNACAANTG
GGGCATTTGGGNCATTTCTTTACNTCTTGAACCAATTCCCAAGTTAGGAATGGAATGCC
CTTTTTCAGGTTGTTAATTGNATGCTACAACTTCTTGGNAAAAAGTTAATTTGGAAT
TTGGGAAAAAATTTGGGAACAAANAGGGGGGAAAAAGGCCTCCATTTGTNCCCGGTGGGGG
GCCAAAAAATACCTTTTCTTC

Sequence 1769

GCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGATTTG
TGTACAAATTGAAATGTCTGTAAGTCTCAACCAATAAAATCTCAGTTATGAAAAAA
AAAAAAAGG

Sequence 1770

GTCGCCCCCTCAGCCGCTTCCCCTCGCCATGGAGGCGAGGCCGCCGCCGCCGCCGGGGC
TCGGAGCCGCGGGCGGGCGGGCGGCCCTGAGGGCTAGTGGCGGCCGAAACGCCGCCGCG
GAGCCGAGGCGGAGCCGCTGTCTCGTCCCGAGCGGTCCCGCCCAACGCCCGACTCTGTG
ACACAATAAAAAAACAAGGTATTTATGGAATTCAGTGGTAATGGATGATGC
AGTTCAAATACTAAGATAAGCATGGATTCTGGTTCAATCTTGTCTGCTCGGCAGTGG
TCTGATATGTGTGAGTCCAACAATGCTACCACAGTTGCACCTTCTGTAGGAATTACAAG
ATTAATTAATCATCAACGGCAGAACCAGTTAAAGAAGAGGCCAAAACCTCAAATCCAAC
TTCTTCACTAATCTCTTTCTGTGGCACCAACATTCAGC

Sequence 1771

GCGTCCGGGCCACATGGCCGCCGCCGCCGCTTGGAGCTGAAGTGCCGCCGCCGCCGGGCA
GCCACGGGGAATCCGCCCGCATCGCCGCCCTCGCCGGCCGGGCGGCCGTGGGGCCAGAG
CGCCGAGGCGCAGGCTGGGGCGGCACCGCGCAGCGGCCACGGGGTCCCGTTAGAGCAGC
GCCCGGCGGCTATGCCGAGAGCCCGGAGCGGCCGAGGAGCAGAGGGGCCGCGGGAGGG

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AGGAAACCTTTCTGCGAGTACGAGCCAACCGGCAGACCCGACTGAATGCTCGGATTGGGA
AAATGAAACGGAGGAAGCAAGATGAAGGGCANAGGGAAGGCTCCTGCATGGCTGAGGATG
ATGCTGTGGACATCGAGCATGAGAACAAACCGCTTTGAGGAGTATGAGTGGTGTGGAC
AGAAGCGGATACGGGCCACCACTCTCCTGGAAGGTGGCTTCCGAGGCTCTGGCT

Sequence 1772

TNGATGTGTATATGGACTGTTNTGAAGGGTTTTTTCTTTATAGCCCANTTAAGTTNTGT
TTGGCTCGGTGCATTTTTCAATTAATTAAGTAACNGTGTGNGTAAA
ATCATTGTGAAGTTTCAAGATTCATTATGGGANGAGTTGATGGTNCANTNANGCATGATG
GTTTAACAAATTTTAACACCAAAAATGTTAAATCCTGCATAAATTCAACTGTANATAATA
AATANGGTGTTTTCNTGTATATGATAGNAATGCAATTAGAAGTACCTNTAGTAAANTCTT
TTGGAATCACCAATNCTTTTTGGCTTGAAATTGGGAAAGAATTTCTGTTTATAATNCC
TTTNNAAATTAACCTTGNGNGGGGGGAGGGGGGAAAATAAAAAATTGCAGGAAAAACCTGC
ATGAGNCACCTTAANAACCTTTAAAGTAAGGGGGCTTNCCAATCTTTTANTCCCNNGA
AAACCCTGGTTGCCTNTTTTGGCA

Sequence 1773

CGTCCGTTTAAAGGCTCTGACTCTTGATCTTGAAAGCCGGACGCGGCACTGGCACTCGGC
TTCAGTTTCCACTGTGACAGATGGAGGTCTCCTTTGCCCCAGCCAGGTGGCCAAGCCC
ATCCTGGCCTCAGAACATGCTGAGCACATTTTGAGGGTGGCACCTTTTTATCCAAGTTA
CTAGCTACACATCAGTGTTTAAAGAGAAAAAGTGACCTTTCATTTTTTTTTCTTGAA
ACTTGAGGAAACAAGATACATACTACTGATTTTTTTTTCTTAAACTAAATGCATGA
CTGCAGAGCGGTAGAGGTGTATTTTTTCACTGTGGGGCAAAGTATTTGTGCTGCTTT
TTGGAGATGGACTGGAACGTCTGGTTCTGTCCCCGGGCGCCGCGCAGCTACCGTCTATTT
CTGTAGAAGGTGCCACAGTGAGACCTGGAG

Sequence 1774

CCCCGCGTCCGCTTCCGGTTGCTAACGGTTCCTCAAACAGCCCCGAAAACGCTACGTGAG
CTGGGCCCTGGGCCAGAGGCAGAAAACGGACGGAAGAAAAGGTCTGGCCGGAGATGGGTC
TCACTCTGTCACCCAGACTGGAGTGCAGTGAGTGGTGCGATCATAGCTTACTGCAGCCTG
AAACTCCTGGGCTCAAGTGATCTTCTCGCCTCAGCCTCCTGAGTAGCTGGAGCTACAGGT
GTGAGCTACCCAGCATGGCTCATTTGAGATTTCTGAGTAGAGAAGTAACATGATTAAAC

Sequence 1775

GGAACCTCCCCTAGATTTTCAAGATGTATGGAACGCCTAGATGCCCTGGCAGAAGTTT
GCTGCAGGGGCGGGGCTCTCATGAAGAACCTCTGCTAAGGCAGTGTGGAAGGGAAATGTG
GGGTTGGAGCCCCCAAACAGAGTCTTAGTGGGGTCTGCCTAGTGGAGCTGTGAGAAGA
GGGCCATCATCTCCAGACCCAGAATGGTAGATCCACTGACAGCTTGAAGTGTGCACCT
GGAAGAGCCGCAGACACTCAATGCCAGCCCGTGAAAGCAGCCAGAAGGGAGGCTGTACCC
TGCAAAACCACAGGGGCAGAGCTGCCCAAGACTGTGGGAACCCACCTCATGCTTCAGTGT
AACCTGGATGTGAGACCTGGAGTCAAAGGAGATCATTCTGGAGCTTTAAAGTTTGACTGC
CATGCAGGATTTTCGACTTGCATGGGCCCTGTAACCCCTTTGTTTTGGCCAATTTCTCCC
GTTTGAACGGCTGTAATTACCCAATACGTGTATCCCCATCGTATCTAGGAAGTAACTAG
CTTGCTTTTGTGTTTACAGACTCATAGGTGGAANGGACTTGCCTTGTCTCAAATGAGACT
TTTGGACTGTGGACTTTT

Sequence 1776

GCGTCCGGAACCTTTATAAGAATTTATGCCGTTNTACATGAACCGTTAAGTTTTGTACTTG
ACGTTTCTGTTTATTANGCTAAATTGTTCTCAGGTGTGTGNTATATATATACATATAT
ATATATATATATATATGTATATATATACACATATATACGTATATATACATATATATGTAT
ATGGAGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTGGCACGATCCCAGCTCACTGCAA
CCTCCGCTCCCGGGTTCGGGCGATTCTTCTGCCTCAGCCTCCCTGGTAGCTGGGGCTGC
AGCCATGTGCCACCAAGCCCAGCTAATTTGTATTTTGGTGGGAGACAGGGTTTCACCAT
GTTGGTGAGGCTGGTCTGGAAGTACCTCAAGTGATCTGCCACCTCGGCCTCCCAAGGT
GTTGGGATTAAACAGGTGTGAAGCCACCGCTGTCCAGTATATTGTTTAAAGTTTA
TTTTGGGTGAAAAATTCTCTTAATGGGAAGA

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Sequence 1777

CCACGCGTCCGGCGCCCCCTCCCGGCCGCCATGTTGGCTGGTGTGTGGGTGTCAAACCTGA
GCCAGACGCGGCGGTGGCGGCGGCTCCGCGGGCTACGGTCGCTCCCGCCTCTCGAGCGCT
GCCGGTGGCCGCGAGCGGCGCACCCACGCCGGCCGGAGGAGCAGAGTGCTAAGTGCTGGG
TGCTCACTGGTGATGAGGCAGATGAAGGTTACCAAACCTGTGGACAGGAGCCTCATATCA
GAGACGTGGACCTCACTGTAGCCTGGTCATGGCTTCCAGCTTTTGAATCTGAGGCTCCA
AAGGAGGAAATGACCATTACGGGATCTTACTCCAGCTTGATTACGGAGACTGAACCTTCA
TAGGGTGCGCACTTACCAAGGACAGGAAGGTTTCTCTGTTTGAAGGGCTTTAAACTTATA
ACAAAGAAAATAA

Sequence 1778

CGCGTCCGAGACAGTTCATACTGGAGACAAACCCTACAAATGTAATGAATGTGGCAAAAC
CTTTAAACGGAACCTCAAGCCTCACTGCACATCATATAATCCATGCAGGAAAGAAACCATA
TACATGTGATGTATGTGGCAAGGTCTTTATCAGAATTCACAACTTGTAAGGCACCAGAT
AATTCATACTGGAGAGACACCTTACAAATGTAATGAATGTGGCAAGGTCTTCTTTCAACG
TTCACGTCTTGAGGGCACCGGAGAATTCATACTGGAGAGAAACCCTACAAATGTAATGA
ATGTGGCAAGGTCTTCAGTCAACATTCACATCTTGCAGTGCATCAGAGAGTTCATACTGG
AGAGAAACCTTACAAATGTAATGAATGTGGCAAGCCTTTAATTG

Sequence 1779

NCCCCGCGTCCGCTGTTGGAGCAGTAGACTTCTCACATCTTTTTGTCACTTCATCGTTTG
ACTGGACAGTAAAGCTTTGGACAATAAGAATAACAAGCCTTTGTATTCATTTGAAGATA
ATGCAGACTATGTTTATGATGTTATGTGGTCACTACCCACCCAGCCCTGTTTGCCTGTG
TGGATGGCATGGGGAGATTGGATTTGTGGAATCTCAATAATGACACAGAGGTACCAACTG
CCAGCATTTCTGTGGAGGGTAATCCTGCTCTTAATCGTGTGAGATGGACCCATTCTGGCA
GAGAGATTGCTGTGGGTGATTCTGAAGGACAGATTGTTATATACCGATGTGGGAGAGATT
GCTGTTCCCCGCAATGATGAATGGGCACGGTTTGGCCGAACACTTGCAGAAATTAATGCA
AACCAGAGCTGATGCAGAGGAGGAAGCAGCTACCCGAATCCTGCTTAGTTCTGAAAAGGG
GAGTGTAAGTGGATTGGGAAAGGGTC

Sequence 1780

AGTAGGAACCAAGAAAACCTTCTTTGCCAACTTTACAGGATATCTGGTAAACTATTACAT
NGTCAGGCCAAACATGCTCCTTGCATTTTTGTGGCTGAATNTGGGTACAGAGTGGTTCT
ATACGATGGTAATAACCAACTTGNAAATCAAAGGAAGNATTCCAACAGAAACAGATAGGAN
AANGTCTTGAGAAGATATATNAAGGAATNTGTCACTTGTACACNATGCCGATCACCAG
GACACAAATTCCTGCAAGAAGGGACACACCGGACTCTATTTTCTACAAGNGCAGGAAA
CCTTGTTCACTTAAGCATGGTTTCTGNTTGCCAGGTATTCAAAAAA

Sequence 1781

ACCCACGCGTCCGGCTGCGTTGGGCTTGCCTGCGGCTCGCTAAGACTATGGCGTCCGGGC
CTCATTCGACAGCTACTGCTGCCGACGCCGCTCATCGGCCGNNCAAGCGCGGGCGGCT
CCAGCTCCGGGACGACGACCACGACNACNACCACGACGGGAGGGATC

Sequence 1782

CCGCGTNCGTTTGTGTTGAATGGNTTGATACTTCTTTACACAACCTATCCATTACTTAA
GGAATCTGCTCTTATTCTTACAAACTGNTCNGGAACAAANTGATATCAGAAATTNGAT
AAAAGAACTTCGAAATGNTTGAAGGAGTNGAGGAAGNTCATTGAATTNCATGTTTGGCAA
CTTNGCTGGAAGCAGAATCATTTGCCACTG

Sequence 1783

GTCGACCCCGCGTCCGGGCCCGTCTACAAGGNTTGTAGATAAAATAGAAACATACCTTCC
TTGAAAATGCAGAATAAATTTTTAAAGGCAGGAAGGAAGTGTGTAACCATGTGTCAAC
AAGCTTTACTGTCAAAGCAGGCTTTTGGTATGGGAAGAAAAATACTTATAAATACTNGTN
TTAATATTTGCTTTATTAATAACATTTAAAAATACAGCATTTTTAAATCTCTAAGCTCAA
CTTGAAGATATAAGAACAGTAAATTTGATAAAAAATGAGAAATTACATTCCCATTCTTTA
ACAATTTGTAAATTCCAATTATCCTGAACATTTAACACCATTTACATATTTTATTAATCA
CATTTTCTTAAACATTTGATAAGAGATTTAATATTTTGTATCCAACCTACCA

Sequence 1784

Sequence 1785

Sequence 1786

Sequence 1787

Sequence 1788

CCCCGCGTCCGAGCAAACATAAGAAACCTGAGTCATTTTGTCAATTTAGAGTATTCTGATA
AAATCTCTTGAAAATACTGAAATCAAAAGGTTAATGATTTTTTGTTCATTCTGATTTGTC
ATTTTATTATCTGTCTAGCAGAAAAATCAAATGGGTAAATTAGCACTTTAGACAGCCAAC
ATAGTGAAACCCTCATCTCTACTAAAAGTTGGCAATTAATCTGAATTTACAGATACAGA
TAACAGTTTATCAGAAATCATATTTTTCTGAAGAAAATTTAAAATTAGGAGTTGTGGGC
CTGGTGCGGTGGCTTACGCCTGTAATCCAGCACTTTGGGAGGCTGAGGTGAGCAGATCA
CTTGAGGTGAGGAGTTGAGACCAGCATAGCCAACATAGTGAAACCCTCATCTCTACTAA
AAGTACAAAAATTAGCCAGGTGTGGTGGCCGTGTGCCTGTAGTCCCAGCTACTCGGGAGG

TABLE 1
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CTGAGGCGGGAGAATCGTTTGGAACCCG

Sequence 1789

GACCACGCGTCCGGTGGCGTCTGGGCGCTCGTCCCCTTCTCTGTCTCCCTTGCCTCCC
CCATCAGTCCCCTGACACCGACACCCATTGCTCCACAGTCTCCCCAGNCTCCACTTT
GGTCCCCAGCGCTGTCTGCCCAGGATTTGCCTGAAGGCTGCCCCAACTCTGCACCCGC
CCCCGAGGGCCACCGAGGACCATGACTAAGACAGATCCTGCCCCGATGGCCCCGCCACC
CCGAGGAGAGGAGGAAGAAGAGGAGGAGGAGGATGAACCCGTCCCCGAGGCCCCAGCCC
CACCCAGGAGCGCCGGCAGAAGCCTGTTGTGCACCCCTCGGCACCTGCCCCCTCCCTAA
GGACTACGCTTTCACCTTCTTCGATCCCAATGACCCGGCGTGCCAGGAGATCCTGTTTGA
CCCTCAGACCACCATCCCCGAGCTGTTTGCCATTGTGCGCCAGTGGGTGCCCCAA

Sequence 1790

CGGGGTCTTCTTGCTGTGAGGTGCGTTCGCCAGTGTTACGGAGGGTCCTTGAGGCAAGG
AGTGAATTTGGGTCTGGGGGTAGTCTGGGGTGGAGGTCTGGGCACGCCGGGTCCGAC
CCCCTNCATCTTCGNTTTGCACACCCCGCTTTCAGCGCGGAGTCCGCGCGGGTAGGG
CNGGCGTCNCGTGCGTGACGTATCCAGCGCGCCTNCGAGGCTNCAGTGGCCTTGACC
TCCCGCGNGTGCGGAGGCTGCGCGCGATGCTGCANTTTCGTCCGGGCCGGGGCNGCGGG
CCTGGCTT

Sequence 1791

GGGTTATGAGAAGAACGCTCAGAGCAGAGCACCGAAAGTGGCCACTACCAGCATGAAGAG
CCCAACAATTCAAAGTGNAGAAGTGAGAAAAACAGAATGCAGCTTTCAGGTTTCGTTTC
AAGCAGTTGGCTTGTGGGACTCTGAGAGATGCTGCTGNCCATGACATGCGGGAATTATCA
TGATCAACTACCCAGCTTGGATTTACCCAGTGGCCAACTAGCTTTGTGTGGGAGACGGC
AAGGGTTGGATTTTCAAAGAGTAAACCAGACCCGTGACCAAGGTGTNAACTAAGAAGT
GGAGTCATGCTTACACCGGNONTATONTGCTGGCAGCCATTCTGGGTCTGGCTGTGGTG
TTAATCTTCATGGGATCC

Sequence 1792

GTGCTGGTTTNTCTTGACAGATGCTGCTGCTAGGGGTGGTGGGAAGCAGCCGTGGGACGCG
TGGCCGGNAGCGGNGGTGACAGCCTGGGANNNCGGGGGCTTNTCTTCCTTGTCCTCCTCC
TNTCCTGTCTATTCCCAGNNGGGGCGTGCTGACACTAAAGACTNTGTANNCATCAACC
CGAGTGCAANTTTCNATGGAAATGAAGTTGCACGTTTTCAAAAAATACCTAATGGTGAA
AATGAGACAATGATTTGCTGTATTGNCAACAAAAAAGCAAAGGNATTNCCANTCATT
GAAGNTGCAAGCATTCTNCAAGCTGATCTTCNAAATGGGTCTAAACAAAATGTNAAAGNTA
AGTTCNTNAGGCNAGCCCTTTTCATGGTTTNGAAATGAGNTTTCGNTTTTTATGTGAAGN
TGGAGGCCNCCNTGTNGGGAAGAAANGTNTNTTTCNCCAGGTTTTNAAAA

Sequence 1793

GTCCGTTTTACAACCTAGTAATAATGTGGATAAATGTATCTACATGACACATGTCAAGAC
CAAAATAACTGTGAATGACACACCTTGCTGTAAATGAAGTGTGCTAACCCCTGACTGTGGG
CTTGAGAACAAAGATGAAGTCTAGAAGTCTAGCAGCCTAACTGCTGCTTCTCAAATAACT
GTGTGAACAGTGAGATATTACTGTTTGTCTAAAAATCCTACTGTGCCAGTTTCCTTC
ACTACATGCCCTGCATTTTTTATTTAAATATTTAGCTGTAGCGCCATCAGATATGGATGC
CTTCTAACAATTGCTGTTTGTAAATAAATCAGGATGGTAGAAAGTGATTATATGGAAAA
TTGGAACCTGGATGAGACCTTTTCGTTGAATTCTGAAGAGTAATGATGTGAAAATTGATA
CAGGGCAAGAGATGATTCTTTGGGTTTTCTTCTACTTCATGTCCAGAAGAGTAAGAGGG
GAAAA

Sequence 1794

TNGTTGCCTGCAATACTACACTTTACAAACAATGTTAACTGTGATTCCTTCATTGTTT
TAAGAAGTTAACCTAGGGCCGGGCATGGTGGCTCATACCTGTAATCCTAGCACTCTGGGA
GGCCGAGGCAGGAGGATCCCTTTAGCCCAGGAGTTAAAGACCAGCCTGGGCAACATAGGG
AGACCCTGTCTTTTTTTGGGCAGCGTGGTGGGGGATAAATAAATAAAAGGAAAAAAAG
TTAGCCTAGAAATTAGAATTAATTTAATTGAATTCATCTAAAGATGTCTCTGGTGATTTT
ATATGTTCCGCTATATAATTGATGCTTTATAGTTTTATCATAATCCAACAACCTTCAGTTA

TABLE 1

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TATTTAATTATTGGTAANGGAGTTTAAGACTNGAAAGACTAGAGTGCTTTCTAGTCCAAA
TAGAGGGTCANGTGAAACCAGCTTTTTGACATCAAGATTTTCATTTTGAGAAGGGANAAG
CCTGTGGGACTGGGCTTAAA

Sequence 1795

GTCCGGAGAAAAGTGAACCTTGGCCAGNTCCTCTTCTCCACCAATAGATGCAGCATCCGC
AGAGCCCTATGGCTTCCGTGCCTCAGTGTTATTCGATAACAATGCAACACCATCTAGCCTT
GAATAGAGATTTGTCCACACCTGGCCTGGAGAAGGACAGTGGAGGGAAGACACCTGGTGA
CTTTAGCTATGCCTATCAAAAGCCTGAGGAAACAACCAGGTCCCCAGATGAAGAAGATTA
TGACTTGAGTTATGAGAAGACCACCCGGACCTCAGATGTGGGTGGCTATTACTATAGAAA
ATAGAGAGAACCACAAAATCTCCAAGTGACAGTGGCTACTCCTATGAGACCATTGGGGAA
AACTACCAAGACCCCTGAAGGATGGTGACTATTCTATGAA

Sequence 1796

CCGGCNTAGGCGGGGGGAACACGCCGCTGCGCTCTTGGGACCCTAGATTTGGGGGAG
GAGGTAACGAGAGGCGGAGAGGGTGGCTCCTCAAATATACACCCCTCCTGTCCTCCGCCA
CCCCACCTTTGATTTCTTCCCTCAACCCAGCACTCCAGCCCCACCCAGGGTCAATTT
TTGCCCCCTTCCATCTGAGCAGTGTTACCAGGCCCGAGGGGACCGGAGGATCGGGGGCC
GGGTGGGGGGTCCCATGGAGTACTCCAGCACACGCAGGGGCTCCTGCGACAGGGGGGG
CCTTCGCCCTGGAAGCCTGGACGCCGAGATAGACTTTCTGAGCAGCACGCTGGCCGAGCT
GAATGGGGGGTCCGGGTCTGCGGTACGGCGACCGAGACCGACAGGCATATGAGCC

Sequence 1797

TCCGATTNNGCCNAGGGTTGCAGTTTGTAGACCCCTGATCTAGACCCTTAAGTAGCCTTG
TTTGTGCCTGAAGTTTACAGATGATCCCCAAGTTATTTTATTTTATTTTGTAGATGG
AGTCTCTCTCTGGAGCCAGGTTGGAGTACAGTGGCAAGATCTTGGCTCACTGCAACCTC
CACATTCGGGTTCAAGTAATCTCCCGCCTCAGCTTCTGAGTAGCTGGGATTACAGGC
GTGTGCCACCATGCCAGCTTTTTGTATTTGTATGTTAGCCATGTTGGCAAGGCTGGCC
TCAACCCCTGACCTCAAGTGATCTGCCACCTCAGCCTCCCAAAGTGCTGGGATTACAGG
AGTGAGCCACCATGCCCGAACCCCAAGTTATGTTTGACTTACAATGTTTGGACTTTATGG
ATGGTGCAAATGTTATATGCATTTAGNAGAACTGGGCTTCAAATTTTGAATTTTGA
ATCTTTTATTTT

Sequence 1798

TCCGCTGCCGAAGTCAGTTCCTTGTGGAGCCGGAGCTGGGCGCGGATTCGCCGAGGCACC
GAGGCACTCAGAGGAGGTGAGAGAGCGGCGGCAGACNACAGGGGACCCCGGGCCGGCGGC
CCAGAGCCGAGCCAAGCGTGCCCGCGTGTGTCCCTGCGTGTCCGCGAGGATGCGTGTTCG
CGGGTGTGTGCTGCGTTACAGGTGTTTCTGCGGCAGGCGCCATGTCAGAACCGGCTGGG
GATGTCCGTGAGAACCCATGCGGCAGCAAGGCCTGCCGCCGCTCTTCGGCCCACTGGAC
AGCGAGCAGCTGAGCCGCGACTGTGATGCGCTAATGGCGGGCTGCATCCANGAGGCCCG
TGAGCGATGGAAGTTCGACTTTGTACCGAGACACCACTGGGAGGGTGAAGTTTNCCTT
GGAANCCTTTTGGGGGGCCTTGGCCTGCCCAAGCTNTACCTTTTCAAACGGGGCCCCGG
CGAG

Sequence 1799

GGCGNAGCTCGNCTTCTCCNCGCCCAAGTTCCGGCGCCGCTCTTGCGGGAGCGTGCCGC
ATCACCCCGGGGGCCCTACGCGAGGATCTCCGGGGCCGTTGGCAGCAGCCTG

Sequence 1800

TCACCCCGCGTCCGGGCGGGCGTGGGGCGGTGGGAGGTAGTGAAGAAGGGTCGGCGGCCT
GGGGTCGGGCGCGGCGCGGCGGCGGAGGAGGCGGTAGGAACCGCAGGGCGCTCGGGGAA
GCAAACNGAGTGTGGAATAACNACCTGACCCCTGCAATCCAGACCACAAGCACCCCTTAT
NAGCGGNGCTTTNAGAATATCATNAAGNGNTTAAATAAGGAGCAGGTCCACCCCTGC
TGTGGAA

Sequence 1801

GTCGACCCACGCGTCCGGGAGCAGAGTCACTGGGAGCGACCGAGCGGGCCGCCGCCGCC
GCCATGAACCCCGAATATGACTACCTGTTTAAGCTGCTTTTGATTGGCGACTCAGGCGTG

TABLE 1
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GGCAAGTCATGCCTGCTCCTGCGGTTTGCTGATGACACGTACACAGAGAGCTACATCAGC
ACCATCGGGGTGGACTTCAAGATCCGAACCATCGAGCTGGATGGCAAACTATCAAACCT
CAGATCTGGGACACAGCGGGCCAGGAACGGTTCGGGACCATCACTTCCAGCTACTACCGG
GGGGCTCATGGCATCATCGTGGTGTATGACGTCCTGACCAGGAATCCTACGCCAACGTG
AAAGCAGTGGCTGCAGGAGATTGACCGCTATGCCAGCCGAGAACGTCAATAAAGCTCCTG
GTGGGGCAACAAAGAGCGGACCCTCACCACCAAGAAGGTNNGTGGGACCAACACCACAA
GCCAAGGGAGGTTTGGCAAGACTTCTTTTGGGGCATT

Sequence 1802

NCCCCGCGTCCGCGGACGCGTGGGCGGAGCTGCTGTGCAGTGGAAACGCGCTGGGCGCGG
GCAGCGTCGCCTCACGCGGAGCAGAGCTGAGCTGAAGCGGGACCGGAGCCCGAGCAGCC
GCCGCCATGGCAATCAAATTTCTGGAAGTCATCAAGCCCTTCTGTGTCATCCTGCCGGAA
ATTGAGAAGCCAGAGAGGAAGATTGAGTTTAAGGAGAAAGTGCTGTGGACCGCTATCACC
CTCTTTATCTTCTTAGTGTGCTGCCAGATCCCTGTTTGGGATCATGTCTTCAGATTCA
GCTGACCCCTTCTATTGGATGAGAGTGATTCTAGCCTCTAACAGAGGCACATTGATGGAG
CTAGGGATCTCTCCTATTGTCACGTCTGGCCTTATAATGCAACTCTTGGCTGGCGCCAAG
ATAATTGAAGTTGGTGACACCCCAAAAGACCGAGCTCTTCTTCAACGGAGCCCAAAAGTT
ATTTGGCATGATCA

Sequence 1803

CGCGTCCGCGCTTCTGTTACGGCCAGTGCAACTCTTTCTACATCCCCAGGCACATCCGGA
AGGAGGAAGGTTCTTTTCTGCTCCTTCTGCAAGCCCAAGAAATCACTACCATGA
TGGTCACACTCAACTGCCCTGAACCTACAGCCACCTACCAAGAAGAAGAGAGTCACACGTG
TGAAGCAGTGTGCTTGCATATCCATCGATTGGATTAAGCCAAATCCAGGTGACCCAGC
ATGTCTTAGGAATGCAGCCCCAGGAAGTCCCAGACCTAAAACAACCAGATTCTTACTTGG
CTTAAACCTAGAGGCCAGAAGAACCCCGAGCTGCCTCCTGGCAGGAGCCTGCTTGTGCCG
TAGTTCTGTGTCATGAAGTGTGGATGGGTGCCTGTGGGGGTGGTTTTTAGGACACCAGAA
GAAAACACAGTCTCTTGTAGAGAGCACTCCCTATTTTGTAAACATATCTGCTTTAAGGG
GGATGTACCAGAAACCCACCTTACCC

Sequence 1804

CCCGCGTCCGTAGATTAAATTATGCAAGTTGCAAGAATGTAGTAACTCTGATCAGCTACA
AGGAAAGGAGGAAAGAGTAAATGAAGAAAGTCATCTAACTGAAAAGGAATATATAGAACA
TTGTAACACCCCTACAACCTGATTCTGATTCAATCTATAGCAGTTAAAGCACTACAAATAGA
TAGCTTTGGTTTAGTTACATGCTTTCAACAAGAGTCTCTTGATGTTTCTCAAATGATACT
TGGAAAATCTCAGCAACCTGAGTCAAAATGCAATCTGAATTTATAAAAGAAAAAGTGC
TACTTGTTCAAATGAGGAAAAAGGTAACCTAAACGAGGTGAGTAATAACTGAAGAGAAAG
AAACAGATGGGAGATCACCTATCTTCATTACTGAACCAAACTACCNGTTCACAATATA
CCTGGATTCGACAGCATAAAAGAAACC

Sequence 1805

GCGTCCGGCAGCTGAAAGGGGATTTGGGCCCCGGAAGATCCGAGTCCATCCGCGGCGGGGA
GAGGGCAAGCGGGACCGGTAGGGGCCGGAGCAGCGGCGGCGGCTCGGACTGTCCCATC
CGCCCCGTATTGAGGCGCTGGGAGCGGCGGGGCGACAGGAAAGCGATGGTGAAAGCGGGG
CCGTGAGGGGGGCGGAGCCGGGAGCCGGACCCGCGAGTAGCGGCAGCAGCGGCGCGCCCTC
CCAGAGTTCAGACCCAGGAAGCGGCCGGGAGGGCAGGAGCGAATCGGGCCGCGCCGCCA
TGGAGCTGAGAGTCGGGAACAGGTACCCGGCTGGGCCGGAAGATCGGCAGCGGCTC

Sequence 1806

GTCGCCCCGCGTCCGCACAGTTGATTCTGAATTTTAAAGGCTTTCCTAATAGGCTGATCA
CAGAGAATAATCCATTTTGAAGGTATAAACTGCACTGTATGTCTGTCACTTGTAGCTGA
ACTGATTCACATTTTGACAAAAGAGAGAAAAATACAAAAATGAGTTTTCGAAATGTAATAA
CTTTTTCTGCATATAGAACTAAATAATTGAAAAATATGGGCTATAGTTCTCAAAGGTAGA
TAGTAAATCACTGGCTTTTCCAGCTGTATGTTTTTCACTGTGCGTGTACACACACAC
TGGAAAATAATTAGGCTGATTTTGCAGGTCTTCATTGTTAGAGATTCTGAAGTATTTACT
GTCAATTCATAGGTTTCAGTTTATTTAGGAAATTAGTGTTTGACAGCTTTTTTAAATTA

TABLE 1
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TTTCACTGAAGCTGAGATTATTAGTGATCAAAGTTAAAATTTCAATATTTAATTTCTCTA
TATATTATTAATATTAATAATGGTTT

Sequence 1807

GTCGACCCCGCGTCCGGTACTACATCCCCTGAAGAAACATGTGCCCAGGTGATTCTGTGAA
GCTAAGAGAACAGCACCAAGTATAGTGTATGTTCCCTCATATCCACGTGTGGTGGGAAATA
GTTGGACCGACACTTAAAGCCACATTTACCACATTATTACAGAATATTCTTCATTTGCT
CCAGTTTTACTACTTGCAACTTCTGACAAACCCCATTCGCTTTGCCAGAAGAGGTGCAA
GAATTGTTTATCCGTGATTATGGAGAGATTTTTAATGTCCAGTTACCGGATAAAGAAGAA
CGGACAAAATTTTTGAAGATTTAATTCTAAACAAGCTGCTAAGCCTCCTATATCAAAA
AAGAAAGCAGTTTTGCAGGCTTTGGGAGGTACTCCAGTAGCACCACCACCTG

Sequence 1808

CCCCGCGTCCGGCCTTTAAAGAAGACTTGAATTCCTATGGAACAATAAAGACACAGCAG
AAAACAGGGATTCTCCTGTTTCAGAGGAAAAATGACCTGTCAACAATTTATCCATT
ATCACCGTGACCTCTGTATCCGAAACATTGTCAAAGAAAGAAGGTGTGGTGCAAAGACTT
CTGCTGGAACTTTCTGTGGCTGTGACCTGGTGAGCTGGCTAATTGAAGTCGGCCTTGCT
CCGACCGTGGTGAAGCTGTGATATACGGAGACAGGCTGGTACAAGGGGGAGTCATCCAAC
ATATTACCAACGAGTATGAATTCGGGATGAGTACTTGTTTTACAGATTTCTTCAAAAGA
GTCCTGAACAGAGTCTCCTGCTATTAATGCAAACACTCTCCAACAGGAAAGATATAAAG
AAATTGAGCATTATCCCCACCCTCACATTCCCCTAAGACCTAAATTATGCAGGGGAGAA
CCCTACATGGAATCAT

Sequence 1809

CGCGTCCGCTGGAGTGCTGCTGAGGAGCGANGGGCCCATCTGGGGTCTCTGGAAGTCGGT
GCCCAGGCCTGAAGGATAGCCCCCTTGCGCTTCCCTGGGCTGCGGCCGGCCTTCTCAGA
ACGAAGGGCAGTCTTCCACCCCGCGGCGCAGGTGACCGCTGCCATGGCTTTTCCCCATC
GGCCGGACGCCCCTGAGCTGCCTGACTTCTCCATGCTGAAGAGGCTGGCTCGAGACCAGC
TCATCTATCTGCTGGAGCAGCTTCTTGGAAAAAGGATTTATTCATTGAGGCAGATCTCA
TGAGCCCTTTGGATCGAATTGCCAATGTCTCCATCCTGAAGCAACACGAAGTAGACAAGC
TATACAAGGTGGAGAACAAGCCAGCCCTCAGCTCCAATGAACAATTGTGCTTCTTGGTCA
GACCCCGCATCAAGAATATGCGATACATTGCCAGTCTTGTCAATGCTGACAAATTGGCTG
GCCGAA

Sequence 1810

CGCGTCCGGTGCATCTGAGGACTGGTGGGAAGGCANGGCACAACGGGATTGACGGGCTGG
TGCTCACCAGTATATAGTGGTGCAGGATATGGATGATACGTTTTAGACACTCTGAGCC
AAAAAGCCGACAGTGAGGCCAGCAGTGGGCCAGTCACGGAAGACAAGTCTCATCCAAGG
ACATGAACCTCCCCGACAGACCGTCATCCTGACGGCTATTTAGCCAGGCAACGAAAAAGAG
GAGAGCCACCCCTCCAGTAAGGCGTCTTGGCAGGACCAGTGAT

Sequence 1811

TCAGGAGTCGACCCCGCGTCCGGAAGGCCGATGCTGTGGGGGTGGGCGTGGAGAGAATTC
TTCTGTGGGTCTCTGGTGTGAGTGGTGGGCTTGGTGTGGTGTGCGGAGGAGCTCCAGG
CCCGTCCGGCGCGGAGTGGTCTCACGTGTGAAACATGGCTACAGATTGGCTGGGAAGTATT
GTGTCCATCAATTGTGGAGATAGCTTGGGTGTCTATCAGGGAAGAGTGTGAGCTGTGGAT
CAGGTGAGCCAGACCATTTCTCTACCCGGCCTTTCCATAATGGAGTGAAGTGTCTTGT
CCAGAAGTCACCTTCAGGGCAGGTGACATTACGGAGTTAAAAATTCTGGAGATACCAGGA
CCTGGAGACAACCAACATTTTGGAGACCTTCATCAACAGAATTAGGCCCTCTGGTGTCT
GGCTGCCAAGTGGGCATCAATCAGAATGGCACAGGCAAGTTTGTCAAG

Sequence 1812

CCGCGTCCGCCCAGTCCNAGTGCTGGCTTTCCCTGTATCTGCCTCTGCCAGGCAACACTT
ATCATGGCTCCCAATCAGCAGGAGCCTCCATGCTCCACTTTGAACAGCCTCTATGCTCCA
GCAATGGGGCATTTGTGAAGAGTGACTTGATTAACTTTTCTGACCATGGGTATAATACAG
TTGCTTCAGAGGGCAGTGGTCTGGGTGTGATTTTTACACTGTAACATTGTATACAGTGT
CATGGATAATTACTATTTTTTTCTGGTCATTAACTCACCTACTCTAGTACTAGGATTT

TABLE 1
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CAGACCAAGGTCTCATGACGCCTGGATATTTTAGTATCTATATCCAATAATCTTTTCTC
TCCTACTGAATATCCAGGCAAAGATGAAATCGTTTTCTTTAAACTGTCAAATTCGTAA
AACTCAGGAGCCAGTTCAAGGGAACAAGCATCTTACAATAGATGGAATCAAGAGTTAAA
TGTTATAGTGGCAAGCTTGTCTACTGGGCAACAGAC

Sequence 1813

CGCGTCCGCCGCGCGCTCCGCTCCCGGTCCCTGGCCOCTCAGCGGCATGGCGTGCGGGGC
GACGCTGAAGCGGCCCATGGAGTTCGAGGCGGCGCTGCTGAGCCCCGGCTCCCCGAAGCG
GCGGCGCTGCGCCCCCTCTGCCCGGCCCACTCCGGGCCTCAGGCCCCCGGACGCCGAGCC
GCCGCCGCGCTTTCAGACGCAGACCCACCGCAGAGTCTGCAGCAGCCCCGCCCGCCCGG
CAGCGAGCGGCGCCTTCCAATCCGGAGCAAATTTTTCAGAACATAAAACAAGAATATAG
TCGTTATCAAGAGGTGGAGACATTTAGAAGTTGTTCTTAATCAGAGTGAAGGCTTGTGCT
TCGGGAAAGTCAACCTCACTCCTCAGCACTCACAGCACCTAGCTCTTCCAGGTTCTCAT
GGATGAAGAAGGACCAGCCACATTTACC

Sequence 1814

CGCGTCCGTTGAAGAATAATATTGTATGTGCATTTTATCCATTAATGTTTCATACTTTCT
GAGAGTATAATACCCTTTTAAAGATATTTGGTATACCAATACTTTTCTGGATTGAAAA
CTTTTTTTAACTTTTTTAAATTTGGGCCACTCTGTATGCATATGTTTGGTCTTGTTAA
GAGGAAGAAAGGATGTGTGTTATACTGTACCTGTGAATGTTGATACAGTTACAATTTATT
TGACAAAGTTGTAATTCTAGAATATGCTTAATAAAATGAAAAGTGGCCATGACTACAGCC
AGAACTGTTATGAGATTAACATTTCTATTGAGAAGCTTTTGAGTAAAGTACTGTATTTGT
TCATGAAGATGACTGAGATGGTAACACTTTTCGTGTAGCTTAAGGAAATGGGGCAGAATTT
CGTAAATGCCTGTTGTGCAGATGTGTTTTCCCTGAATGCTTTCGTATTAGTGGCGACCAG
T

Sequence 1815

GTCGCCCCGCGTCCGATTTAACTGGGTCTTTATAAAAGTAAATGGCCAACATTTAATT
ATTTTGCAAAGCAACCTAAGAGCTAAAGATGTAATTTTCTTGCNATTGTAAATCTTTTG
TGCTCCTGAAGACTTCCCTTAAATTTAGCTCTGAGTGAAAAATCAAAAGAGACAAANGA
CNTNTTCGANTCCANNTTTAAGGCTGGGGGAAANTGGGTTTTTAGCNCAACCNTTNCA
AAGTTTTNTTTNGGGATTATACANNCACCNAAATGNTTTTTTGTGGCCANACATT
CATTTCAATACTAGTTATATTNANNAGGAGTNGGTAGAGAGGAAACATTTGACTTATCTG
GNAAAAGCAAACCTGTACTTAAGAATAAGAATAACATGGNCCATT

Sequence 1816

TCGACCCCGCGTCCGCTCTGCTCCTTGTCTCCNTCTNCCTTTTTCTGTCTTTGCCGGGTC
TCTGGGTCTCTGACCCCATCCGGCCCTCATGGCTTTGGGTGNGGAGCTNTTGAAGCAAT
GTTTCATCAT

Sequence 1817

CCACGCGTCCGGGGGAGCCGGACGCCAGAGTCCCTCTCCACGCCGTGCAGCTGCGCTGG
GGCCCCCGGGCGCCGACCCCGCTGCTGCCGCTGCTGTTGCTGCTGCTGCCGCCGCCACCC
AGGGTCGGGGGCTTCAACTTAGACGCGGAGGCCCCAGCAGTACTCTCGGGGCCCGGGGC
TCCTTCTTCGGATTCTCAGTGGAGTTTTACCGGCCGGGAACAGACTGGGGTCAGTGTGCT
GGTGGGAGCACCCAAGGCTAATACCAGCCAGCCAGGAGTGTGTCAGGGTGGTGTGCTA
CCTCTGTCTTTGGGGGTGCCAGCCCCACACAGTGCACCCCATTTGAATTTGACAGCAAA
GGCTCTCGGCTCCTGGAGTCCTTACTGTCCAGCTCAGAGGGAGAGGAGCCTGTGGAGTAC
AAGTCTTTGCAAGTGGTTTCGGGGCCAACAGTTCGAGC

Sequence 1818

TCGACCCACGCGTCCGGTGAAACACAAAACCAAGGAGTACATTAAGAAGTACATGCAGAA
GTTTGGGGCTGTTTACAAACCCAAAGAGGACACTGAATTAGAGNGACTGTTGGGCCAGGG
TGGGAGGATGGGTGGTCAGGTAANGACAAGACTCTAGGGNAGAAGGAAANCCTGTGGGCC
TTTNTGTCCCACCCCTGTCAGCACTGGTGCTACTGATTGATACATNACCCTGGGGGGNAA
TTNAACCCCTGCCAGNATGTCAACNTGGAANGGCCACAAAGAAGTGAACCTCCCATCTAC
AAAAANGAGTTTACNCTTANATTTTGTAGAAGCCTNGTTTGGCCATTGTTGCNNNTAGAN

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AGTCCATNNANTAGGNGGCAAGGGGGCCTNTANTAAAAATGAACCCCTGGNACAGAACCT
TGNACTTNCACATTCTTTAAANCCCTGGGAGATGNTTTGCTTTCTNTGGGNCNGNTTGN
TTTGNTTCAAGCTGCTACNAAGTAACTCTCAATGGCCGGCAATTATCCCCAACTCNCACN
AAACTCCNTTTTTAACCCCTGGCANGGAATCCTTGCAAATTAATAATTTTTTAAATGGG

Sequence 1819

GTCCGGCTTTAGTGAATTCTTAATAGATNGTATATATAAAAGTACATTTTAAATAGAAAGC
CAGGGTTTTAAGGAATTTACATGTATAAGGTGGCTCCATAGCTTTATTTGTAAGTAGGC
TGGATAAATGGTGCTTAAATGGTAATGTACTCCACTTCTTCCTATTGGAAGATTAACATT
ATTTACCAAGAAGGACTTAAGGGAGTAGGGGGCGCAGATTAGCATTGCTCAAGAGTATGT
AAAAAAAAAAAAAAAAANGAACCAAACTGGAATAATCAAATGCAAAAAGGTAA
CAAATTCATAACTGGAAAGCAAAGAGAAGAACAAGTATGATTTGGATGATAAAGCATTGT
TTTAATGGTGAAGACTTCACCAGATCACTTAATGTTTCTAGGAGGTAACTTCAAGTGGG
CAANTGGGGGTTTTAGGTAGGTGAGTGGCCCTAAGTTCCTAAAGCCCACAGATTAGGGA
TCTGTAAACTGAATGGTCTGTTGGAAGGTTTTGTTTAACTGCTTGGGAGGCTTTCCT
TTTAAG

Sequence 1820

GCGTCCGGGAAAGTTTTGCCTTCCANGCCGAAGTTAACAGAATGATGAAACTTATNATCA
ATTCAATTGTATAAAATAAGAGATTTTCTGAGAGNACTGATTTCAAATGCTTCTGATG
CTTTAGATAAGATAAGGCTAATATCACTGGACTGATGAAAAATTGCTCTTTNTTGGAAAT
GGAGGAACTAACAAGTCAAAAATTAAGTGTGATAAGNGAGAAGAACCCTGCTGCATGTC
ACAGACACCTGGTTGTCTGGAAATGACCAGTAGAAGAGTTGGGTNTAAAAACCTNTGGT
ACNCATTAGTCCAAATCTGGGACAAGNCGGAGTTTTTTAAAACAAAAATTGACTTGAAAG
CCACCAGGGAAAGATGGCTCAGTTCAAACTTTTTGAATNTGGATTGGGCCAGTTATG
GTGGTCCGGTTTTNCTATTTCCNCCTTTCCCTTGTAGCAGATTNAAGGTTTATTTNGTC
ACTTTCAAAAAACAACAAACAAACNGATTACCCCAAGCAACATCTTGGGGGAGNTCTTGA
CTTCCAAATG

Sequence 1821

CGTCCGCGGGTAAATGTTATGGTAAGCATGCACANGTTTGCAGTCTACAGTTTTTTTAT
GTAGCACAAAATAGGTGTACCTTTATAAGTACATTCAATTTTATGATTTACATTTATCAT
GTAATTTTTAAAAAATCCATCTATCTAGGATATGTTGGATACAAAGTCTGCTTTTGCTA
TTCTTTTTGCTTAAATACTCCTATCTTTCTGAATTACTTGGTATTTAGAACTCCTAGC
ACCACGGGGAAGAATAGAGGTATCATCAAACGTGGCAAATTTTCTTTCAGGAATAATAAA
GAGCATGATTCCACAGCTTTTCTGGGGATGTTTGAGATTCTTTTTTAGTACTAAGCAAAA
TTCTCATCACAGGAATGTAGCCCAGGCCAATTTATACTAAATCTCTATTTTGTTCCGGAT
GATGCTTCTAAACAGCATTGATAGGTTAAAGAAGCTTGGGTATTTTAAATTTACTTCAA
TGATTAGCTCAATTGCTTCTGGGAGTTTAACTCCTGTGGATATGTCAT

Sequence 1822

GGGCGCCCCGCGTCCGCTGATCTCGGGCTCCTATTTCAATTACATTGTGTGCACACCAAC
GTAACCAAGTGGGAAAACCTTTAGAGGGTACTTAAACCCAGAAAATTCTGAAACCGGGCTC
TTGAGCCGCTATCCTCGGGCCTGCTCCCACCCTGTGGAGTGCATTTTCTTTTCAATAAA
TCTCTGCTTTTGTGCTTCATTCTTTCTTGTCTTTGTTGTGTTGTCCAGTTCTTTG
TTCAACACGCCAAGAACCTGGACACTCTTCACTGGTAACATATTTTGGCAAGCCAACCAAG
GAGAAAAGAAATTTCTGCTTGGACACTGCATAGCTGCTGGGAAAATGAACATCAGTGTTGA
TTTGGAAACGAATTATGCCGAGNTTGGTTCTAGATGTGGGAAGAGTCACTCTTGGAGAGA
ACAGTANGAAAAAATGAAGGATTGAAACTGAGAAAAAAGCAGATGAAAGTGTCTCACG
AGCTATGTGTGCTCTGCTCAATTCTGGG

Sequence 1823

CCCCGCGTCCGGTCTTTGGCACTGTCATNTGTGTCCCTCGAGTGAGCNTCACCAGAGCT
GCAGTAANNNGNCACCTACTACNGGCTCTGNGCTGAGTCCTTCCAGTGNGCCTCTCACTG
AATNCTCACCCCACTGNCATGAGGTTTNCCTTATTTGACTGATGAGGGTGNAGAGCCAGG

TABLE 1
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GAGCCTTGNTCACTGGTTCATTGANTACATTTACAAATATTATTNACAGAGTGGGAGAAG
AGCCGTATAGGGNCTTAATGCCATGGTNGGGACTTTGGAATTTAATTCAAGTGATGTGGG
AGTACCTGCCAGATGGATGGAGGGTGAAATAATGCTTAAGCCCTCAGCC

Sequence 1824

CGCCACGCGTCCGCACCGGCCCGATGAGCTGCAGCGGCTCCGGCGCGGACCCCGAGGCG
GCTGCCGGCCTCCGCCGCTCGGCCCGGGCCCCGCGCCCCCGGACTNGGCTCCCGCCGC
GCTGCCCTCCAGCACCGCCGCGGAGAACAAAGGNCAGCCCCGNGGGGACAGGNNGGGA
GGACCTGGGNGCTNGGAGCAAGCATGCTGGGGGGCACAGGGACCCTTTGGCGGGAAGCCG
GGCCGGTAGAGCNCAGCNTGAAGCAGGNTNTGAGGAGCTGGNTCCCTGNGNATNGGNNGA
GGATGGGCCGCGNGGANGCCCTCTCCGNGAAGGGGGGNGCTCAATAATCTTAACCGGGGGG
TTTNA

Sequence 1825

CGCGTCCGGCTGAAGGCTCCCCTGGGNTTCTGGCCTCCTGGGGCAGAANGGGAGAGAAA
GGCGATGCTGGCAACTCCATTGGAGGAGGCAGAGGGNACCTGGCCCTCCAGGGCTCCCT
GGGCCCCAGGGCCAAAGGGAGAGAGCAGGTGTCCGATGGCCAGGTTGGCCCCCAGGGCA
GCCAGGAGACAAGGGGGAGCGTGGAGCAGCTGGAGAACAGGGACCAGATGGCCCCAAGGG
CTCCAAGGGAGAACAGGGAAAGGAGAGATGGTGGATTACAATGAAACATCAATGAGGC
TCTCCAGGAGATCCGGACGCTGGCCTTGATGGGGCCTCCTGGTCTTCTGGGCAAATTGG
CCCACCTGGAGCTCCAGGGATTNCAGGCCAGAAGGGGGAGATTTGACTGCCANGGCCCTT
CAGGACACGATGGGGAAA

Sequence 1826

GTCGACCACGCGTCCGGTTTTTTTTTTTTTGGAGACAGAGTTTTGCTCTTGTTGCCAGG
CTGGAGTGTGATGGCTCGATCTTGGCTCACCACAACCTCTGCCTCCTGGGTTCAAGCAAT
TCTCCTGCCTCAGCCTCTTGAGTAGCTTGTTTTATAGGCGCATGCCACCATGCCTGGCTA
ATTTTGTGTTTTAGTAGAGACAGGGTTTCTCCATGTTGGTCAGGCTGGTCTCAAACCTC
CAACCTCAGGTGATCTGCCCTCCTTGGCCTCCAGAGTGCTGGGATTACAGGTGTGAGCC
ACTGTGCCGGGGCCCGTCCCCTCCTTTTTAGGCCTGAATACAAAGTAGAAGATCACTTTC
CTTCACTGTGCTGAGAATTTCTAGATACTACAGTTCTTACTCCTCTCTTCCCTTTGTTAT
TCAAGTGTGACCAGGATGGCGGGAGGGGGATCTGTGCTACTGTAGGTACTGTGCCCAGGA
AGGC

Sequence 1827

CGACCNCGCGTCCGGCACTCTGTTCTTCCGCCGCTCCGCCGTCGCGTTTTCTCTGCCGGTG
AGCGCCCCGCCCCGGGGCCTGAGCTGGACGTGCGAGGCCTGCGCCCCCGACCCGGCTG
GCCCCGCTTCCAGCTGCCGAGGCCTCGTGCGCCTTCCCCGGGAACAAAGGCGGGGTG
CAATGGAAGAAGAGATCGCCGCGCTGGTCATTGACAATGGCTCCGGCATGTGCAAAGCTG
GTTTTGCTGGGGACGACGCTCCCCGAGCCGTGTTTCTTCCATCGTCGGGCGCCCCAGAC
ACCAGGGCGTCATGGTGGGCATGGNCCAGAAGGACTCCTACGTGGGCGAC

Sequence 1828

CNCCACGCGTCCGGACCGGGGAAGACGCCTCTTCGCCGCCTCCGAAAACCGAGGCAGCGA
GCGACCCCGAGCATCCCGCGGCCTCCGAAGGGGCCGACGCCGCCGCCGCTCGCCGCCAC
TGCTGCGCTGCCTAGTGCTCACCGGCTTTGGAGGCTACGACAAGGTGAAGCTGCAGAGCC
GGCCGGCAGCGCCCCCGGCCCTGGGCCCGGCCAGCTGACGCTGCGTCTCGGGGCTGCG
GGCTCAACTTCGACAGACCTCATGGCTAGGCAGGGGCTGTACGACCGTCTCCCGCCGCTGC
CTGTCACTCCGGGCATTGGAGGGCGCCGGGGTGTNTGATCCGCAGTGGGCGAGGGGAGT
CAGCGACCGCAAGGCAGGAGACCGGNTGATGGTGTGAAC

Sequence 1829

GGTGTGCCCCGCGTCCGCTTGTCTTTTTTGGGGGTGTGAATTTTTGCATTGTTCTGAT
CATATCTTTATCATGTAATTTATGTTCTTTTTACTAAGTATTATGTGTGGTTATTATA
GATTTTCACAAAGATATATTGCTGGTAATATATTTTATTGTGTAGTCTTATAATTTACTT
AACCTTCTTTCAATTGTTAGAAATTTAGGCTATTTCCAGATTTTCAGTATTGTAAATAAT
GCTGTGATGACCAATTTTGTGAATAAAATGTTTTATGTATTTTCAATTATCCCTTAGG

TABLE 1

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ATAGTCTCTCAGTGCCAAGTTGTCAAAAACATCTCTATTTTGCTTATCTTCCTGCTCTCT
TGCTGCCTTAGGGGGTAGTAAACTGAAACATAAAGTAAACATGCATACAAATAAAAAACA
TAAAACAAAATAAGCAACCTGATGGTAATAGGTGAAAGTGGTAACCTGTTTAACTTTG
AATTCTTGCCCGGCGCGGTGGGCTCACGCCCTGTAATCCCAGCA

Sequence 1830

CGCGTCCGGTAAACCAGCCGGAGCGGCGCGGNAGCGGCAGGACCGCCGTGGCGCCTAGAG
TAGCAGACCCGGGGGAGCGCGGGGCGACGCTGGCTGCAGGGACCCGGTGACAGCGTGAG
AGGTTTTGACAAGCTTGCATCATGCGTGAGTATAAGCTAGTCGTTCTTGGCTCAGGAGGC
GTCTGGAAAGNCTGCTTTGACTGTACCAATTTTGTCAAGGAATTTTGTAGAAAAATAC
NGATCCTACCGATAGGAAGATTCTTATAGAAAGCAAAGTTTAAAAGTAAGATGCACAACCA
GTGTATGCTTTGAAAAATCTTTGGATACCTGCCAGGNAACCGGGAGCCAATTTACANCCA
ATGGAGGGGGATTTATAACATGNAAAAAATGGGACAAAGGGATTTTGCATTTAGTTTAA
TTNCAATCACCAGACACAAGTTCCACCAATTTTAAAACGAATTTTACCAAAGAACCCTG
GAGGAGNAACCAAGAANTTCTTTNNGAAGTTTAAAAGGAACCACCTTGAATTGGAATG
GTTTCCCAAATG

Sequence 1831

CCAATTATAGACTATATAGGGGGAAGAGCACTGGATTTGGAGTCAAGAAACCTGGACACT
TGGCTCCACACTTCCTTAGCTGGGTAACCTTTGGGCAAACCGCTTGGTCTCTCAAGCCTAA
GGTTCTTCAGCTATAAAATGGGAATAATACTTCACTAACTACCTCACAGAGTTGTGGTAA
GAATATAATCAGATAACTGGATAAAAACACTATATAAACTGGAAAGCGCCGTACAAATGT
GAGAGATCAGTTTTATTATCAAATCACTGTTTTCCACTGCCTCTTGAATCGGCTTTATTC
TAACCAACCATTACATCTTTCTCATCTTTTGGAGTATGGGTAATTGAGGCTTGGGTGTGT
CATCAGGGACTGGGAAGTTATTTAGCTCCCATGTAAAAGGTGGGAGAGGTGGTTTGTGG
GNGCAG

Sequence 1832

GNGTCGACNCGCGTCCGCTATTTACTACCTCCTTATGAGGAAGTGGTGAACCGACCTCC
AACTCCTCCCCCACCATACAGTGCCCTTCCAGCTACAGCAGCAGCAGCTGCTGCCTCCACA
GTGTGGCCCTGCAGGTGGCAGTCCCCCGGGCATCGATCCCACCAGGGGATCCCAGGGGGC
ACAGAGCAGCCCCCTTGTCTGAGCCCAGCAGAAGCAGCACAAGACCCCCAAGCATCGCTGA
CCCTGATCCCTCTGACCTACCAAGTTGACCGAGCAGCCACCAAAGCCCCAGGGATGGAGCC
CAGTGGCTCTGTGGCTGGCCTGGGGGAGCTGGACCCGGGGGCTTCTGGACAAAGATGC
AGAAATGTAGGGAGGAGCTGCT

Sequence 1833

GCCNCGCGTCCGTGAAACGCAAAAGAAGGAGCTCGGAATATAAGAACGTCAGAACGAGTG
ACACTAATAGTGGAATAACACTAGATTTGTTGTAGACCCATCCATTTTACTGCACAGCCA
AATACAATGTTGGGCAGGATGTTTGGATCTGGCCGAGAACATAACTTTACACGACCCAAT
GAGAAAGGAGAGTATGAGGTGGCAGAGGGAATTGGTTCCACTGTGTTTCGAGCGATTCTG
GATTACTATAAAACAGGAATAATCCGTTGTCCTGATGGCATATCTATTCCTGAAGTGAGA
GAAGCATGTGACTATCTTTGTATCTCTTTTGAATATAGCACTATTAAATGTAGAGATCTC
AGTGCCCTAATGCATGAGTTATCAAATGATGGTGCTCGTAGACAATTTGAATTTTATCTG
GAAGAAATGATCCTCCCTCTCATGGTAGCTAGTGCCAGAGTGGGGAACGG

Sequence 1834

CCNCGCGTCCGCTTTAACCACCATAAGAAATCAGAAAACGCAAGATAAAGTTCAGCACAC
AGTATGTATGGATTGCAGTAGCTACAGTACATACTGTTATCGCTGTGATGATTTTGTGGT
TAATGACACCAAGCTGGGACTGGTACAGAAAGTCAGAGAACACTTACAGAACTTGGAAAA
CTCAGCTTTCACAGCTGACAGGCATAAGAAAAGAAAACCTTTTGGAAAACCTCAACACTAAA
CAGCAAGTTATTAAGTAATGGAAGCACCAGTCCATTTGTGCCACAGGCCCTTCGGAA
TTTGGGGAACACATGTTTCATGAATGCCATCCTTCAGTCACTCAGTAACATTGAGCAGTT
TTGGCTGTTATTTCAAAGAACTGCCCCGCCGTGGAGTTAAGGAATGGGAAAACAGCAGGA
AGGCGGACATACCACACCAGGAGCCAAGGGGATAACAATGTGTCTTTGGTAGAAAG

Sequence 1835

TABLE 1
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TTACTGGGCACCCANCTCCATGTGCANGACTTTTCCCAACACAGCCTTGGCCAGTCAGAT
GGTGTGNCAGGGCCNNAGGTTTNCGTANCCTCTTGGGTGATAGAAAGGGGCCAGGCCCT
GGGCTGGGGCTCATAANGGACTCAAANGAGGCACCTTGCCC
Sequence 1836
TCGCCCCGGGGGCCATGGCAGCAGCGGCTACTGCAGCCGAGGGGGTCCCCAGTCGGGGGGCC
TCCCGGGGAAGTCATTCTGAATGTGGGAGGCAAGAGATTACGTACCTCTCGCCAGAC
TCTCACCTGGATCCAGACTCCTTCTTCTCCAGTCTTCTGAGCGGACGCATCTCGACGCT
GAAAGATGAGACCGGAGCAATCTTCATCGACAGGGACCCTACAGTCTTCGCCCCCATCCT
CAACTTCCTGCGCACCAAAGAGTTGGATCCCAGGGGTGTCCACGGTTCAGCCTCCTCCA
TGAAGCCCAGTTCTATGGGCTCACTCCTCTGGTTCTGTCGCTGCAGCTTCGAGAGGAGTT
GGATCGATCTTCTGTGGAACGTCCTCTTCAATGGTTACCTGCCGCCACAGTGTTCCC
AGTGAAGCGGCGGAACCGGCACAGCCTAGTGGGGCCTCAGCAGCTAGGAGGACGGNCAGC
CCCTGTCCGACGGAGCAACACGATGCCCCC
Sequence 1837
CGCGTCCGTTCTAGATCGCGAGCGGCCGCCCTTTTTTTTTTTTTATCTTTCTGTTTTTC
CACTAAAAGCTCCGTTTTTCCATCTTCCATTACTCTCCCTTCTGTGNACACTCCTGA
AGACAGGCATCCTCATAAGGTGTTCTGAATTAACCTTAGGGNGTTCTCCAGGTACTTTGC
ATCTTTTTATATTTCTTGTAATTGNTAATTTCTAAGCTCCATGATTAAGAGAATTCAC
CACTAAAAAAAAAAAAAAGG
Sequence 1838
CGCGTCCGGGCTGGCGAGCGCCGNCGCCGGCGGAGACCGACNCTNGGCCAGAGCCNGCCC
GCGGCGCCCGGGCCTGGCCGGCTGCTTCCCGCCTCAGCNNGGCGCCCCNGCCTCCGTGCG
CCGCAGACTTTGCCTAGGCGGGCNGAAGCTGAACAAGAGGTCCCTCGGCCCTGCACGGTC
CGGCCGCGGTCCGGAGCCGANGCGCATGAGATTCCCAGGAAGCCATCACACTCCTTCCC
ACTGTGGTTTNGGGAGCATGAAGGCGTTG
Sequence 1839
GCCCCGCGTCCGTTTTATTTGCACTTTTATGGGTGACAGTTTTTACGCATAACCTTTGA
TAAATACACTCAAGTGACTTGGACTTAGATGCTTATCCTTACGTCCTTGGTACCTTTTT
TGTATTACAAACACTGCAATTTATAGATTACATTTGTAGGAAGTTATGCTTTTTTCTGG
TTTTTGTTTTACTTTCAACCTAGGTTATAAGACTGTTATTCTATAGCTCCAACCTAAGGT
GCCTTTTTAATTCCTACAGTTTTATGGGTGTTATCAGTGCTGGAGAATCATGTAGTTAA
TCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCAGCCTACATTCACCTTCTAAA
GTCTATGTAATGGTGGTCATTTTTTCCCTTTTAGAATACATTAAATGGTTGATTGGGGA
GGAAACTTATTCTGAATATTAACGGGTGGTGAAAAGGGGACAGTTTTTACCCTTAAAGT
GCAAAAGTGGAACATACAAAATAAGACTAAATTTTTNAGAGGTAACCTCAAGTAATTTT
Sequence 1840
GTCCGGCCAGCTGATGCCGGGAGCTAACTACCGCGCCGGGGCCGGGGCCGGGGCCGGGGC
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CGTGGCCCGCGACCTATTGAGGGGCACATCTAACATGTCATTTGAGGAGCTGTTGGAATT
GCAGAGCCAAGTGGGGACTAANACNTACAAACAATTGGTAGCTGGAAATAGTCCTAAGAA
ACAAGCTTCTAGACCACCTATCCAAAATGCATGTGTTGCANATAAGCACAGGCCTCTGGA
AATGTCANNCAAGATCCGAGTNCCATTTTTACGTCAGGTTGTTCCATTAGTAAAAAGGT
AGC
Sequence 1841
GCACCCGCTGNGAGAGGCGGTAGCGGCGGCGGCGGCGGTGGTATCGGCGGCAGCTGTGAG
GGGGTCCGGGAAGATGGTGCTGATCAAGGAATNCCGGGTGGTTTTGCCATGTTCTGTTT
AGGAGTATCAGGTAGGGCNAGCTTTACTCTGTTTGAAGAAGCTTTGTAATGAATTGAGA
CTGGGTGGGTGGAGAAGGAATTGAAGNTCTTAAAGAATGAACCTTATGAGAAGGATGGAG
AAAAGGGACAGTTTTACGCACAAAATCTACCTAAAGAGCAAAGTTGCCTGCATTCTGT
GAGGATGATTGCTCCCGAGGGCTCCCTTGGTGTTCATGAGAAAAGCCCTGNAATGCCG
TACCCCTACTGTAGNAACAATTNTNAACCGAAATGGAATATATTGAAANGAATGATTTTC

TABLE 1

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CTTCAATTNAAAANTCCGAAAACAATNGGCANCCAAAACCCATNACTTTGGGGAACCATN
TAGGAAAAANNGTACCNATNGGGTTTTTAGGATTCCCAAACCACNATTGGGAAAAAAC
CTTG

Sequence 1842

CCCGCGTCCGGCGGAGAAGACTCAAAAGAGTGTGAAGATTGCTCCTGGAGCAGTTGTATG
TGTAGAAAGTAAAATCAGAGGAGATGTAACATATCGGACCTCGGACAGTGATCCACCCTAA
AGCAAGAATTATTGCGGAAGCCGGGCCAATAGTGATTGGCGAAGGGAACCTAATAGAAGA
ACAGGCCCTTATCATAAATTGCTTACCCAGATAATCACTCCTGACACTTGAAGATCCA
GTAACCAANAACCTATGATTCAATTGGCACCAATAAATGTTGTTTGGAAAGTTGGGCTGGT
TTATTCCCAAAGGCCCATTTGAAAGATGGGGGAGGATAAAATAAATGGTCATTTGAAATCA
AAAAGTCAATTATTGTTAGGCCAGAAAATGGTAAATATTTGGACCAAGTTGGCTTGCATT
CATTTGGGNGGGCTTTGGTTGCAACCTTAAANTACATTTTGTAAAGTTCATCCCCTGGAGA
ATACCNGGTGGAATCCTTAAT

Sequence 1843

CGACCNCGCGTCCGGGGGATCTGTGCCTGGCATGGGGACGAGTTCTGGCCTCCTTAGGGT
ACGGGGAGAGCTTGGACTTTGGTCTGACGTGGTGGACGACACACCTTCGAAGAGTGGAC
GTTACCTCAGTTGTCTGTTGTTAGAGTTTAAATCGATCACTCCTCTGTTTTGTTGTGTTCT
TTCCAGAAATAACTTTACCAAAGGAAAGCTATTTTGCGAACATCTTCTCCAGCGGAGA
TGGCCAATGTGCTTTGTAAACAGAGCCAGACTGGTTTCTATCTCCAGGATTTTGCTCTT
TAGTTAAAAGGGTTGTCAATCCCAAAGCCTTTTCGACTGCAGGATCATCAGGTTCCGATG
AGTCTCATGTGGCTGCTGCACCTCCAGATATATGCTCTCGAACAGTGTGGCCTGATGAAA
CTATGGGACCCTTTGGAC

Sequence 1844

GGGACAGAGCCCCGATCCGCCAGCACACCTGAGGATTNNGAAACCGCCCCAGCGATGG
AAGAGGGNCAGGAGCTGGAGAGGAAAGCAATAGANGAACTGCTTAAGGAGGCAAAACGTG
GGAAAACTAGAGCTGAAACAATGGGACCCATGGGTTGCTTATTACAGGGACAAGATACAA
ACTAAAATCAGCCAAAATAAGACACAAAGATTAAAGCCA

Sequence 1845

CGTNCGGGACCCGNCAACATGGGCCGCGTTTCGCACCAAAAACCCGTGAAGAAGGCGGCCCG
GGTCATCATAGAAAAGTACTACACGCGCCTGGGCAACGACTTNCACACGAACAAGCGCGT
GTGCGAGGAGATCGCCATTATCCCAGCAAAAAGCTCCNCAACAAGATAGCAGGTTTATG
TCACGCATCTTGATGAAGCGAATTTAGAGAAAGGCCANTTAAGGAGGTATCTCCATCA
AAGCTGCAGGNAGGAGTGANGAGAGNAAAGGAGTAGACAATTATGTTTCCTGAAGGTCTC
AGCCTTGGGATCAAGNGAGAATTATTNGAAAGNTAGATCCCTGNACAACTAAAGGAAATG
CTTGAAGNCTTTTGGACCTTCGNACAGGTTCTTGTCCAACCCTTTCAAGGTTCACTTCAG
GCCTACAAGTTGGGGATTGAAATTTTCAAAAACGCCNTCGGGGGAACCCTGTTTTGAAA
ATTTTTTTCTTGNTAGNTGCCTTGATTAATTTTT

Sequence 1846

GTCGACCCCGCGTCCGCAGCCTGGCCTGTGAGACCCCTCGTGACAACAACCTGCGGGTCA
CCAATGGAACCGCAAGCTGGGCTGCAAGTGCCAGTACAAGCACATTGTGGAAGTGGTGTG
GCTGCTCCCCAACGACTTCAAGCCACAGGACTTCCTCCGGCTGCAGCAAGTCTCCAGAC
CCACCTTCTTCGCCCGGAAGTTTCGAGTCGACTGTGAACCAGGAGGTGCTGGAAATCCTGG
ACTTCCACCTGTATGGCAGCTACCCCCCGGCACGCCAGCCCTCAAGGCCTACTGGGAGA
ACACCTACGACGCGGCTGATGGCCCCAGTGGGCTCAGTGATGTCATGCTCACTGCTTACA
CAGCCTTCGCCCGCCTCAAGCCTGCACCATGCCGCCACTGCTGCACCCCCAATGGGCACC
CCACTCTGCAGGTTTGAGCCCAGGGGCTTGGCGTCCAAGCGTGCACCTGTATTTCTATG
ACGACCATTTT

Sequence 1847

TCCGCAAGAGTTATGCTTAAGACCAGCCAGCCTTGATAGTGGCAGAACATCCACTAGCAA
TAGCAATAATAATGCTTCACTACATGAAGTCAAAGCAGGTGCAGTTAATAACCAAAGCAG
GCCACAAAGCCACAGCAGTGGAGAAATTTAGCCTGCTTCATGACCATGAGGCTTGGTCCAG

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CAGTGGTAGCAGTCCAATCCAGTACTTGAAAAGACAGACCAGATCAAGCCCAGTGCTCCA
GCACAAAATATCTGAAACACTGGAGAGTCGACATCACAAGATCAAACTGGTTCCCCTGG
AAGTGAAAGTTGTTACTCTACAACAGTTTTTGAAGAAAGCAATAAGCTTACCTCAAGTA
CAGATAAAGTCCTCAAGTCAAGAGAATCTTTAGATGAAGTAATGAAAAGTTTGGCTGNC
TCTTCTGACTTTTTGGGAAAAG

Sequence 1848

GCGTCCGCGCCGGGCCGCTCTAGCCGGTGAGGCCGGCGGGCTCTCTGTGGCTGCGGCTGG
GAAACCGCGCGGAGGAGGTGCCCCGGCCGGGGACCAGCCCTGGTCCAGCGCCTCCCTCTCT
CAGCATGGACGAGGAGAGCCTGGAGTCGGCCTTGACAGCTACCGTGCGCAGCTGCAGCA
GGTGGAGCTGGCCTTGGGCGCCGGCCTGGATTCTGTCTGAGCAGGCTGACCTGCGCCAGCT
GCAGGGGGACCTGAAGGAGCTCATCGAGCTCACCGAGGCCAGCCTGGTGTCTGTCAGGAA
GAGCAGGTTGTTGGCCGCGCTGGACGAAGAGCGCCCCGGGCCCGCCAGGAAGATGCTGA

Sequence 1849

AGTCACCACGCGTCCGGGTTGCACTCTTCCTATAGCCCAGAGGGCGAGAGGGCCTGTGGC
CTGGGGGAAGGAGGACGAGGTTCTGCCTGGATCCCAGCAGTAGGACGCTGTGCCATTTGG
GAACAAAGGAATAGTCTGCCTGGAATCCCTGCAGATCTTGGGGCCGGAGGCCAGTCCAAC
CCTTGAGCAGGAAGAAACGCAAAGTTGTCAAGAACCAAGTCGAGCTGCCTCAGAGCCGG
CCGCGAGTAGCTGCAGACTCCGCCCGCGACGTGTGCGCGCTTCTCTGGGCCAGAGCGAGC
CTGTTTTGTGCTCGGGTTAAGAGATTTGTCCCAGCTATACCATGGGCCCGCACTCGGNAA
AGCTGGCTTGCGTGGCCGCTGGTGTGGTTATCGGGGCTGGTGCCTGCTACTGTGTATACA
GACTGCTTGGGGAAG

Sequence 1850

TCGACCNCGCGTCCGCTCAGGAACCTTNGAGAAGATNAGNNCCCCACTTAGATTNTTAAG
GAGTAAAAAGGGCTGAGTTATGCCTTTAAGNGCTGTCAAGAATTCAGTTGGGTTTGGGAC
ATTTGCTGGTGTAATGCTAGATGCCACAGCANCATAATATTGNNCTTTGTCAAAGGTNG
GTAAATNCTNTGNTTNTCANCANCCCTTTCCCCA

Sequence 1851

AGTCACCACGCGTCCGCGGCTGGTGGTGGGCTCGGGCCGCTCGCCTTGCCCGTCTTCGCT
TCCGGAGGTTCGCTACTGCCGCCTCAGCGGCCCGGAGCGGGGGCGCCCGGGGGTCCCTCG
CCCCCGGCCACGGTCCCCGCGCCGGGGCTTCGCCGCCCCAGTGTCAGAGCTGGATCGTG
CGGACGCCTGGCTCCTCCGAAAAGCGCACGAGACAGCCTTCCTCTCCTGGTTCGCAATG
GCCTCCTGGCATCGGGCATCGGGGTCTCCTTCATGCAGAGTGACATGGGTGCGGAAG
CAGCATATGACCATCCCCGACCTTGGCCCTGTTGCTACCCTGCCTCTNCCGACGGCTTC
TTNCTGCTGGGCGGCCTGTGCGTGGTGTGGGGCAAGCGCCTTGTAACCGTGGGCCTGGCG
GCGCTTNGAGGACCCATGCAGCTGACCTGGGGGGCCGGCCTGGG

Sequence 1852

GCGTCCGCTCGCTGCAGCCCCGCCTGGGGCCACGGCACCCCTCGAGCGCCAGCCCCGCGCCC
CACCCGGGAGCAGCGAGCCACCGGCGCGCTCCCCAGGAGCCCCTGCAGGCGCCGGCCCTG
GTCCAGCGCCTCCCTCTCTCAGCATGGACGAGGAGAGCCTGGAGTCGGCCTTGACAGCCT
ACCGTGCGCAGCTGCAGCAGGTGGAGCTGCCTTGGGCGCCGGCCTGGATTCTGTGAGCA
GGCTGACCTGCGCCAGCTGCAGGGGGACCTGAAGGAGCTCATCGAGCTCACCGAGGCCAG
CCTGGTGTCTGTGAGGAAGAGCAGGTTGTTGGCCGCGCTGGACGAAGAGCGCCCGGGCCG
CCAGGAAGATGCTGAGTACCAGGCTTTCCGGGAGGCCATCACTGAGGCGGTGGAGGCACC
AGCAGCGGCCCGTG

Sequence 1853

GCGCCCCGCGTCCGGAAATTGACCCCTAGAGAAAATCCCATTAACCTGTAAATTAGTGG
AATTAACAACAAATAAAGCATGTTTGAGACCTGGCAAAAATTCCTCTGGTAGTATTTATA
AATAGAGCTGCATGCCTCTAGTATGAAAACCGTATCAGTTGCAAGTGCCACTTCTACAAG
TACTCAGTTTACTCTTTGTATCAGTAACTTTAAAGGTTGGATGATCCTTGCTGGTTAAA
GCTAAATCTCAACCTAGCAACTAAATGAAAATATTTAGAATCATCAGAATCTGAACAGAC
TAAAATTATCAGCGATAAGCAGAATCAAGCAGGGTATAAGTTTTATCTCAATTATTTGAA

TABLE 1
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ATTGACTGGAGTTCCTTAAAGTGTAAGCTGAAATTTGCTAACCATGTTTTGATGAAC
CCACAGTGCAGCATTGGGTTGGGTTTTAGATTTGAATGACTCTCTGCTATAATTATCAT
GACTTTGAAA

Sequence 1854

TGTCGACCCCGCGTCCGAACCTTTGGGAGACTCCAAGACAGCATGCTCCGAGGTCCGGCGG
GGGTCTGGGTGGCCATGGAGGAGCCCCCTGTGCGAGAAGAGGAAGAGGAGGAGGGAGAGG
AGGACNAGGAGAGGGACGAGGTTGGGCCCGAGGGGGCGCTGGGCAAGAGCCCCCTCCAGC
TGACCGCCGAGGACGTGTATGACATCTCCTACCTGTTGGGCCGNGAGCTTATGGCCCTGG
GCAGCGACCCCGGGTGACGCAGCTGCAGTTCAAAGTCGTCCGCGTCTGGAGATGCTGG
AGGCGCTGGTGAATGAGGGCAGCCTGGCGCTGGAGGAGCTGAAGATGGATAGGGACCACC
TNANGAAGGAGGTGGAGGGCTGCGGAGACAGAGCCCTCCGGCCAGCGGGGAGGTTGAAC
CTGGGCCCAAACAAAATGGTGGTT

Sequence 1855

TGTCTGCCGAACAACTGAAACTATGCAGGTTATATCATTCCACCAGCACCACCAAGACC
TGATTTTTGATGCTTCAAGGGGAGAAAACTACATGAAGCTTGGNGAAGNGAGAAGGGTC
AAGTGACCGAANNGCAAGNAATTTACAAANAGAATGAAACNAGGCAACTGGAAAGCTCG
AAATANTTTTGGCAATTATTTAGAGGANAGCACCAGATTTGCCGTATTGCATNGGAANT
TGNTACCCNGTAGTTCNTGTTGGANATGTCAACANTCCCTANTNTTTGNACGAAACT
AAGGAATTNTAGAAATTTTGAATNGTTCCTTTACTTGGGGGAAAATTATTNNAATTCC
AAAGGAATCTTTNAGAGNTTGNNTNGCCGTAANGGCAAGAGAGAGNCNATNTNGAAACT
NAGGAAGCGGAAACCTTTTGNAAANAACTTTTCTTTTTTA

Sequence 1856

GAGTCGACCNCGCGTCCGGCGGCGAGCGGGACTGGCCATTGGAGTGCTCCGCTGCGGAGG
GAGGGGACCCCGACTCGAGTAAGTTTGCAGAGCACTACGCAGTCAGTCGGGGGCGAGCAG
CAAGATGCGAAGCGAGCCGTACAGATCCCGGGCTCTCGAACGCAACTTCGCCCTGCTTG
AGCGAGGCTGCGGTTTCCGAGGCCCTCTCCAGCCAAGGAAAAGCTACACAAAAAGCCTGG
ATCACTCATNGAACCACCCCTGAAGCCAGTGAAGGCTCTCTCGCCTCGCCTCTAGCGTT
CGTNTTGGAGTAGCGCCACCCCGGCTTCTGGGGACACAGTTTGGCACCATGGGGCCCA
CCAGCGNCCCGCTGGGCAAGGCCACCGCAGGCTCGGTCTNTGACTACGNCAACTATGAT
ATTCATTGCTCCGGCATTACAACACACGGGGAAAGCTGAATATCAG

Sequence 1857

CGTACGCCGAGCGCCGCTCCGGCTGCACCGCGCTCGCTCCGAGTTTCAGGCTCGTGCTAA
GCTAGCGCCGTCGTCTCCTTCAGTCGCCATCATGATTATCTACCGGGACCTCATCA
GCCACGATGAGATGTTCTCCGACATCTACAAGATCCGGGAGATCGCGGACGGGTTGTGCC
TGGAGGTGGAGGGGAAGATGGTCAGTAGGACAGAAAGGTAACATTGATTGACTCGCTTCA
ATTGGGNGGGAAATGCCTCCGCTGAAAGGCCCCCGAGGGGCGAAAGGGTACCCGAAAGNCA
CCANGTAATCACTTGGGTGTTCCGAATATTGGTTNATTGAAANCCATTCAACCCTTGONA
GGGAAAAACAAAGGTTTTTCNACAAAAAAGAAAAGCCCTTACAANGGAAAAGGTTAC
CATTCANANAAGAATTTAACATTTGAAAAATTTCAAATCTAAATAGGGGGGAAAAACCT
TTTGAAAGGAAACCAGGANGTACCCACAGGANAAAGGAAGGTAAAAA

Sequence 1858

GNGTGACCCCGCGTCCGGTGGAGGGTCAGGAGCTGCCCCGGATCCTCTCCATGTAGTTG
CGAAGTCCTCAGGGTCCTTCAGCCCCATGTCCTCACACACCCAGCGGATGTCCTCCTCG
CCTGCCACAAGGATGGACTGCACAGCAGGGGCCCTACAGGCTCCTCAGGTGACTGGGT
GGAGGGGCTGGCGCAAATGTCACAACTCTACTCGCTTCCGCCGCCGCCAGCCTCCTT
CGGGCCAGGGTGCTTGAGGAGCTGGTGGTGCCCCCAGGAGGGCCAGGGGCCAGGTAGGG
GCCTCCCCTCCTCCCCACTCTCACAGGGGAGCTCCCCTCCCCCTTGGGCGGGCCAGGG
GACTGCCGGTCCAGCTGGCGGCTCAGTTCCTCCTGGTCAGTGCCAGCCAGACCCAGTTG
TGGGGCTGGGGGAGGTTGGGG

Sequence 1859

GCGCCCCGCGTCCGGCGGGCGGCGGGCGGCGGCGAGCGGCAGCCAGAGGACTCCAGCGGCTG

TABLE 1
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GAGCAGAAAGTGTTAGCCGGCCAGAGCTCCCAGACCCCTACCCACAGCCAGGCGGGACGCG
CACAGTCCCTCCACGCGGAAAGAAGTACCTTCGCCGGTCACCGGCTCCTGCAGGGTTGCA
NATATATACAGAGCTTCATAATCAGCCCAAGACCACATAGAGCAAACATGAATGATATTT
CCCAAAAGGCTGAGATTAAGAAATGCTTGCTTCTGATGATGAGGANGATGTATCTTCTA
AAGTNGAAAAGGCTTATGTTCCAAAA

Sequence 1860

CGACCCCGCGTCCGACCCACTGAAGACGTCTGCGTGAGAATAGAGACCACCGAGGCCGAC
TCGCGGGCCGTTGCACCCACCGCCAAGGACAAAAGGAGCCCAGCGCTACTAGCTGCACCC
GATTCCTCCCANTGCTTANCATGAAGAAGGCCGAAATGGGACGATTCACTATTTCCCGG
ATGAAGACAGCAGCAGCNTACAGTTTCCAACAGCGACTTCACTACTTCTACCCCTACC
AAGNCAAGCTTGCTCTGAAAAGCCCANTTATGCCANAATGTAGGATCCTGAAAACCAAGA
AACTTTTTTACTTGAAATT

Sequence 1861

GCGTACGGCCTGTTGGGCTGTCTGGGGGGTGGCCATTTAGGGATCGTGGGGACGGGGTCC
ACCCCANNAAGAAAGAACAGGCCCGTCCACAGGCCCGGCTCTGGGCCACAGTGCCCCGG
AAGCAGGTGTGTCCAGAGTCANGCTTGAATGGCTCTCCCCACAACCACCCAGCNAGGCGC
TGGTGCNTCCTTCTGCCTCATGGGACCAGTCCAGCTTNCAGCCGCTCTGGGCTCGAGGGT
NGGTACTGACCACTTTCTTCTTGAGNTGGGAGCATTCTCTGGGGGAGNCTCTTCCAGT
GGGCACCTGCCTGGGACNCTTGCCACCGGTTTTCTTGTAATAATCAGGAATACCGGTGG
CTTTTAGTAAAAGGCAAGACCANAGNCGCCTTNCGTTGGGCAGGGGAAAAGCCAAGCGTG
CCGGNNGGNAAGGTCACTGAAAAAAGGTGGCTTGCCCTAAGGGGGAAGTTTGGGAAAATA
GTCCCCCTGTTCCAAGAANTGCCTTTGAATTTTTAAAAACATTTTTGGCT

Sequence 1862

CAATNTACAACGCCATGTNCACCCANATGTTCCAGACTAAGCGCTGNTTTTGACTGGCCC
CCACCTTNAGCAACCTGCTCCTGCAGCCNACCACCAACCCTCATACCTCGGNCAGCCACA
GGCCTTGCGGTCAATGGGGATGTAGACAAGCCTTCAGAGCCAGCCTCTGAGGAGGGCTCT
GAGTNGGAGGGGAGTGAGTCCAGTGGACGCTCCTGTGNGAATGAGCGCAGCATCCANGAG
AAGCTTNAGGTCTGATGGCCNAAGGNNTGCTNCCCTTGCTGTGAAAGTCTTNGTGGACTG
GCTTCNGACCAAC

Sequence 1863

NGGAGTCGACCCACGCGTCCGGCCGCCAGAACACAGGTGTCGTGAAACTACCCCTAAAA
GCCAAAATGGGAAAGGAAAAGACTCATATCAACATTGTCGTATTGGACACGTAGATTC
GGGCAAGTCCACCACTACTGGCCATCTGATCTATAAATGCGGTGGCATCCGACAAAAGAA
CCATTGAAAAATTTGAGAAGGAGGCTGCTGANATGGGAAAAGGGCTCCTTCAAGNTATGCC
TGGGTCTTGGATAAACTTGAAAGCNTGAGCCGTGAAACCGTTGGGTATCACCATCTGGAT
ATTCTTCCTTTGTGGGGAAATTTTGGAGNACCAGGCAAGTTACCTATTGGTGGACTTATT
CATTTGGATGGCCNCCAAGGGACCACCAGGAGGACCTTTTATCAAAAAAACANTGATTA
CAGGNGGACATCCTNNAGGCCTGGACTGGTGGCTGGTCCTGNATTGGTTGCTGGCTGGGT
GGTTTGGATGGAATTTTGAAGGCCTGGGNTATNCTTCCCAAAAGAAAT

Sequence 1864

GCGTCCGATGGCGTGNTGTCTCACAGAAAAGTTCTCCGCTCCCAGACATGGGTCCCTCGGC
TTCTGCTCGGAAGCGCAGCAGCAGGCATCGTGGGAAGGTGAAGAGCTTCCCTAAGGAT
GACCCATCCAAGCCGNTNACCTCACAAGCCTTCTGGGATACAAGGCTGGCATGACTCA
CATCGTGCGGGAAGTCGACAGGCCGGGATCCAAGGTGAACAAGAAGGAGGTGGTGGAGGC
CTGTGACCATTTGTAAGAGACACCACCATGGTTGGGTGTGNGGCAATTGGTGGGCCTA
COGTTGGGAAAACCCCTCGAGGCNCTCCGGTACCTTCAAGACTTGTCTTTGCTGGAGCA
CAATCAGTTGAATGAAATGGCAAGAAGGGCGGTTTNTTATTAAGTAATTTGGCCATTAA
AAATTCTAANGAAAGGAAAGGGCCTTACCAAAGTTACCTGCAAGGAAAATGG

Sequence 1865

CCGGCCGGGCTGGGTCCCAGCACNTGACCCAGCTGCACTGCTGTACAGGGCTGCNCGTC
ACCCGAAGTCAGAAACGTGGCATCTCATCGGAAGAGGAGGAAGGAGAGGTAGACAGTGAA

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GTAGAGCTGACATCNAGCCAGAGGTTGGCCTCAGAGCCTGAACATGCGCCAGTCACTATC
TACCTTCAGCTCAGNAGAATCCATCAGATGGGGAGGAAGGCACAGCTAGTGAACCTTCC
CCAGTGGCCACACCTGGAAGTTGGCTAGCACCAACACNTGATGAGTCCGGGCNCAGNAT
GAAGCNGNGTTCTGATGAACATGTTGACTCCCAAGGGGCTCAAGAAAATCCCCACNTGGG
ACNCCACTCTCCTTCAGGAGGGTCATACCCTGGGCCCTGGAACCCAGCTCCCTGGCCCA
Sequence 1866
TTGCGCCCCCGCCGGTGAGCGCGGGGAGCGCCGCAAGCCCAACGCCGGGGGAGCCCCGN
TCCGGTGCGCCGCCGGCCGAGGCCTCGCCGGTGCGAGAAAAGGAGAAGAAGGACAAGGA
GCGGGAAAACGAGAAGGAGAAGAGTGCCCTAGCCCGGAGCGCAGCCTCAAGAAGCGCCA
GTCGCTGCCCCGCTCCCCACGTGCCCGCCTCTCTGCCAGCACCGCCTCTGAGCTCAGCCC
CAAATCCAAGGCCAGGCCATCCTCTCCCTCCACATCCTGGCACAGGCCTGCCTCCCCCTG
CCCCAGCCCAGGGCCAGGCCACACTCTGCCTCCAAAGCCACCGTCCCCCGAGGCACCA
TGCATCCCCCAAGGGGCGGGTTCGGAGGAAGGAGGAGGCAAAGGAGAGCCCCAGCGCCG
AGGGCCCGAGGACAAGAGCCAGAGCAAGCGCAGGGCCAGTAACGAGAAGGAGTCAGCAGG
CCCAGCCTTACCGGCACCTTTGGCGGNGCCTTGGCCAACCCTAAGCCCGGCCAAAAGGAG
CAAGCCCCCGNGGAGACCCCTTACAGACCTGGTTTCTTTGACTTAACCCCAAGCCCTTGT
TCCCCGGTGACCCCTAGCAAANCAATGGGCCGNGNACCACAAGANCGAGAAGAAGCCCTT
GGNTNTTGGCTTGAAAGCGGCGCCAGGNCCTGGGAACAACCGGAAGCCCCANGAGCAAGA
ACCGANGCTTTANGCAAAAAAGGACAAAGCCAATTGCAAAAGGACAACCTTGACCGGAAG
GCCCAGGC
Sequence 1867
CCCCGCGTCCGTTAAGAGTTGCATATTTTACTTTATTTTTATTAAATTAAGCTACAG
TCTGGCAGCGATTCCAGAACAGGGTAAGGAGGTTCTCACAGGGGTGAGAGAAGAGCGGA
GAAAGACAGACTGACGGAGACTGAGACACAGGAGAGAAAGGACAAGGTTAAGGGAGAACT
GTATCTGATGAACACACACAGCCGGCTCCATGGCGGGTGACGGGGAGCTCACATCAGCCC
AATTTCTCCTCCCCGGCACCCGAAGTTCAGCGGTGGAGCAGTATGTGGGGGCGGTTAGGA
ATCAAGAGACCCTCCCTTCCCACCCTAGGTCCTTTCTCGGCTTGGTCTGTGGAGCACAGC
ACATACCAGAAAAAGCCAAGGGCAATGGAGGGGCGAGGAAACCGGGAGTATATGTACAG
GGGAGGGGAGAACAGAGCCTTGAGGTCGGCCTCTGCCAGAAGGGAAGTGGCTCACACTT
GCATTTGNAACACTTGCCAGTGCGGGGATGGGGGAAAGGAATTGCCCTTCTTTTGG
Sequence 1868
CCNCGCGTCCGCACACCCTTCTGTACTCAGTCCTCAGTTTGCCTGGTGAGAGAGCAGC
CTCCTCCCGTGTGCTCTGCCAGCTGGACCCAGACTGGCCATATTACAGTGAGACCAAAA
AGATGGAGGTGGGGAGGTAGCTCTGAGGTCTGGGAAACCATTCCAGCTCCTGCCAGTTTT
AACTTGTGTTTAAATTCCTGGCACAGTTGTCTGGAAATGCCTTTTTCTCTTGCCTGGGAA
CCACTAGAAGGGGATGTTGTCTGTGTTGGCCAGGGCCATGCAAATCAACATCTTGTTC
TGCCCTTCCCCCGTGTAGCTGAGGCTAGGTGTTGGCATTACCCAGTGCTTGTCTTCAGA
GAGCAAAAGCACTGCTCGTCATGTCTGAAATTTAGTGAGTGAGCTCACCCTAGGCTGG
TGTTTCTGCCCCTGGCTGCACATTGGAAGCACCGGGGCACTTTGAGAACTACAGATGCC
TGGGTCCAGAGCATCTAAGGTGCTCTAGGGTGTGTCCAGGACACAAGCCCTGGTTGAGG
ACCACTGCTATATTGTATGGCCTCTTTTAAAAAGTTAATTTTACTTGGAATGATTTC
AAGCTACAGAAAAGTTGCAAGAATAAAAACTGTACAAATGAGGCTTAAATATTCTTTGGC
CAAATCACCTATTAACATTTCTGTTCCAAAAA
Sequence 1869
GGGCAGCGCCTCCGACATGAAGGCTGAGCTGTGCAACTTATTAGCGACCTGGGCGAGCT
CAGCTTCGGCAACGACGTGCGCACCCCTGCAGGCCGACTTGCGGGTGACGCGCCTGCTGTC
AGGCGACAGCACGGGCGAGAGCTCCATCGAGGGCGGGGGCCCTGACGCCACCTCCGC
CACCGCCGGGACTCGTCCCGCCAGGCCGACGGCGCCAGTGACAGCAGCCCCACTCGGG
CTGAGCTCCTCCGCGCTCGCCGGCGCTCCACCGTGGCTACCCATCCGTGGTCCCGACAA
CCTCCCTGTCCCTTCCCCGCCCCAGGAAGGGGAAATGGGGCATTGGGGCCAGACCT
ACACTTGAGCCCAGGTCCAAGCGTTCCCCGACCGCTTCCCTACTNCCGGNCCCCGCTC

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CCGCCCCAAGAACTTTTGGCTTTTTTGC GCGTGGGGATGCGGGGAGATTTGAGANGGGNA
AACCCCCGCCAGGAAGGAAGAGAAGAGGCACCCCTTTGGGAATGCCGGTGAAGGGAAGGT
TGGCTGAAGTTCCTAAGTTTAAGGCCTAAGGTGCCTTGGNCAGGTTTCCTGTTTGTGGGG
GAAACTTGGGNCCTTGAGGAGGANGGGGTTAAATTTCTTCTTCCAACCCCTGGGAAGCGGG
CCTTGCCTTGGANNTGAAATTTAANTNAAAAAAAAAAAAA

Sequence 1870

TCTTCATCATGGGTGCCAGCATCCACCTGGTGGGTGACTCTGTCAACCACCGCTGCTCT
TCAGTGGCTACNAGCACCACTGTCTGTCCGTGAGAACCCCATCATCAAGAATCTCAAGC
CGGAGACGCTGATCGACTCCTTTGAGCTGCTCTACTATTATGATGAGTACCTGGGTCACT
GCATGTGGTACATCCCCTTCTTCTCATCCTCTTCATGTACTTCAGCGGCTGCTTTACTG
CCTCTAAAGCTGAGAGCTTGATTCCAGGGCCTGCCCTGCTCCTGGTGGCACCCAGTGGCC
TGTACTACTGGTACCTGGTCACCGAGGGCCAGATCTTCATCCTCTTCATCTTCACCTTCT
TCGCCATGCTGGCCCTCGTCTGCAACGAGCGCAAGCGCCTCTTCCTGGACAGCAACG
GCCTCTTCTCTTCTCCTCCTTCGCACTGACCCTCTTGCTTGTGGCGCTCTGGGTGCGCT
GGCTGTGGAATGACCCTGTTCTCAAGAAGAAAGTACCCGGGTGTCATCTACGTCTGAGC
CCTG

Sequence 1871

CCGCGTCCGGTTTGTTGCTTATAGGTTTAATAAGTCTATTGAGGAAGACCTACTCCTGTG
TGAATCTTTGCAAAGTAATGCTACCGGTGAAGAAATATTCAACTGNATCAACAGTTTTAT
GCAGAAACATGAAATTGAATGGGAAAAATGTGTTGATGTTTGTAGTGATGCTTCTAGGGC
AGTGGATGGGAAAATTGCCGAAGCTGTCACCTTAATAAAATATGTGGCTCCCGAAAGCAC
CAGTAGTCACTGCCTATTATACAGACATGCACTGGCAGTTAAAATAATGCCTACATCTCT
AAAAATGTGCTAGACCAGGCAGTACAAATCATCAATTATATTAAGCTCGACCACATCA
ATCCAGACTATTAATAATTTTATGTGAGGAAATGGGTGCTCAGCACACAGCACTTCTTCT
AAATACAGAGGTGAGGTGGCTTTCTCGAGGTAAAGTTCTTGAAGACTTTTTGAACCTCG
TCGTGAACCTTTGGTTTTTCATGGATTCTGGCTTTTCGACTATCTTGATTGGTTAACAAA
TTCATCTTGGCTGCTAAGACTTGCATATCTTGCAGATATTTTTACTAAATTAAGTAA
GTTAATTTGTCAATGCCAAGGNAAAAATGTGACCCGTTTTACNAGTATTTGATAAAATGT
CGTCATTGGTAAGAAAATTGGAAT

Sequence 1872

TCGACCCACGCGTCCGCGGACGCGTGGGTGTGACTGGCACCCAATGCCATGCCCTTTATGG
TCACTTGGTAGTATAAAGGCATGGCATTGTTGTGACTGGCACCCAATGTTTGATTTTTT
TTTTAAACTATCCAATTAATAAAGGTCTGGGAGTGTTCTGTTTCCATTCTTTAATA
CTCACCTCCTCCAGACTTTCTACACCTGTTGCACCTCAGGCAGAGGATGTTCTGGACCT
CCCCCTCTTGGTCCCTACTAGAGACCTCTCAACAGATCTGTGGGCCAGTCATTGGGTTT
TATCAGTGCTTAATGTGAAC TAAGTTTTTACTTCCACAGAATACAAGCCACTACCTTCT
GACCTCCCCACCCCCACCAACCCCCATCTTTTAATATGCTGTGGGGCATAGA ACTCCGG
AATGACCAGCATGATATTTTCAGAGTCTTGTCCCGGGGTATTAGCACCTCTTTTTGAAC
AGGGAATTGATTCAAGATTGGACATGGTCTCCTCTGATTATCAGGTA CTGGGCTGAGGG
CATTAAAAATAGTAAGCCTCCCTCTCGTCCCTGCCTCAAGAAATTGCCTCTTATTTATC
AACATCTTTTTCTC

Sequence 1873

CCNCGCGTCCGGTGTTCTCCTGAGAATTAGTGGTCAGACATTGCAGAGGGCATCAGAA
GCGGGTAGATGAAATAGCGAAAGGAAACAGGCTAGCAGACCAAAGAGCTAAGTCAGCAGT
AAGAAGGCCCAAGGTCCCAAAACACTTGAGGCCCTCTGATTGGGAGGGCTACATAAG
GGAAATAAAGCCTCAGTATTTCCCTACAGAGATAGAATGGGCCACCTCTCGAGGTATACT
TTTCAACCCTCAGGATGGTTACAATCAGAAGATTGCAAAGTACGCTTGCCAGCCTCCAGC
CAATGGAAGATTCTTAAATCCTCCACTGAGCCTTTCACTTAGGAAAGCATAGACATCA
GTGCATCCAAAGATTGTTCTCAGGAGAAAATCTACTAAAAATGGTCAAATAGGTTGTTAA
TACTCGTGAAACCTCTTAAAAATAATCCCTTTAACAGATGACTTCTTCCCCACCACAAT
CAAAGGA

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Sequence 1874

ACGCGTCCGATGACCAGGCTGCCCCGCTCCTGGTTCTGCCAAGTTCTCCCTGGAGACT
GAAGTCGACCTCAGGAAGCCCCTAGAGAACCTGGGAATGACCGACATGTTGAGACAGTTT
CAGGCTGACTTCACGAGTCTTTCAGACCAAGAGCCTCTCCACGTCGCGCAGGCGCTGCAG
AAAGTGAAGATCGAGGTGAACGAGAGTGGCACGGTGGCCTCCTCATCCACAGCTGTCATA
GTCTCAGCCCGCATGGCCCCGAGGAGATCATCATGGACAGACCCTTCCTCTTTGTGGTC
CGGCACAACCCACAGGTGAGCCTGGAACCCATCACGTTCCACATCCTCCACCCATTCT
TTCTCTCAGGAACTAGTCCCGACAGATGCAGACATCCCTCTATCCCTGAGAGGGCTCTGG
GCAGGGAACCCATAACCCTACCCTGCTTCTGTCCCAAGAGGAGGC

Sequence 1875

AGTCGACCCACGCGTCCGCCCACGCGTCCGCTTCTTCTGGGCACTGACTGCCCTTCTGG
TCGCTTCAGCTGCTGCCTTCCAGGGTCTTCTGCTGCTGTTGCCGCCACCACCATCTGTAC
CCACAGGGGAGTTAGGATCAGGCCTCCAGGTGGGAGCCCCAGGAGCAGAGGAAGAGGTGG
AAGAGTCCTCACCCTGCAAGAGCCACCAAGCCAGGCAGCAGGCACCACCCCTGGTCCAG
ACCCTAAGGCCTATCAGCTTCTATCAGCCCGCAGTGCCTGCCTGCTGGGCCTGTTGGCCG
CCACCAACGCGCTGACCAATGGCGTGTGCTGCTGCCGTGCAGAGCTTTTCTGCTTACCCT
ACGGGCGTCTGGCCTACCACCTGGCTGTGGTGTGCTGGGCAGTGTGCCAATCCCCTGGCCT
GCTTCTTGCCATGGGTGTGCTGTGCAGGTACACAAGGACCCCCAGCCCCTGTGCGGGTG
GAACTCA

Sequence 1876

TCGACCNCGCGTCCGGTCTTCGCGAGGTGGCCCTCGGGCCCCGAGCCGCTGGGTAAAGGGTG
ATGCCTAGCCTGGCTTATTGCACCTTCTTTTGGCGGTTGGCTTGGNGCGAATCTTCATC
TTAGCACATTTCCCTCACCAGGTGCTGGCTGGCCTAATAACTGGCGCTGTCTGGGCTGG
CTGATGACTCCCCGAGTGCCTATGGAGCGGGAGCTAAGCTTCTATGGGTTGACTGCACTG
GCCCTCATGCTAGGCACCAGCCTCATCTATTGGACCCTCTTACACTGGGCCTGGATCTT
TCTTGGTCCATCAGCCTAGCCTTCAAGTGGTGTGAGCGGCCTGAGTGGATACACGTGGAT
AGCCGGCCCTTTGCCTCCTGAGCCGTGACTCAGGGGCTGCCCTGGGCCTGGGCATTGCC
TTGCACTCTCCCTGCTATGCCCAGGTGCCGTGCGGCACAGCTGGGGAA

Sequence 1877

ACCCCGCGTCCGCCCTTAAGAGACAATGATTGAGAAAGAGCCATGTGGCTTGGCTCTAGA
AACGTCAATTATCATTAGGACCATCAGATTTTAGATTAAGCTGCTATTGAATTAATAAAAT
CCCAATGAAGCAGAGTTATAGGGATAGATTTATAGCTGGCAGAGTGGTATCAAAGGAGAA
AAACAGTGA AAAAGCCAATTTCACTGGTTTCGTTCAATCCAGCTTGTGCTAATATTAGTT
ACCCTTGTTTTAAATGACAGAGAGTGGCTGGAATCTGTAGCTAGGGGAGGGGCAACACTGT
TAGATGTGAGGAAAGGAAGTGCCAAAATGCCTGGACAGATGGCTTGTCCCAAGGCCAGG
ACACACACTTTAAAATCCAACATTACCTAAGCAAGTAATTCTTAAAGATCTTACAGAAA
CGCAGAGTCAATTCAGGTTTATAAAGGAAGGCTTNAGGGGAGAGAGGAAGGCCTGGGGGG
CCTGGACGAAAGAGGCCTAGGACCTGAAGAGACTCCAGCGAGTCTTCGGGAAGC

Sequence 1878

AGTCGACCACGCGTCCGCAGCATCGTCCGAGACTTCCAGACTCCCGGCCAGCCATCGAG
GACCTCAAGTACTGCCTGGAGAGGACGGACCAGAGGCAGCAGCTGCTCGTGTCCTCAAG
GCTGCCCTGGAGACTCGGCTCCTGCATCCAGGCGTCAACACGTGTGACATCATCACCCTC
TATATCTCTGCCATCAAGGCGCTGCGCGTGTGAGCCCTTCCATGGTCATCCTGGAGGTG
GCCTGTGAGCCTATCCGCCGCTACCTGAGGACGCGGGAGGACACAGTGCGGCAGATTGTG
GCTGGGCTGACGGGGGACTCGGACGGGACAGGGGACTGGGCTGTTGAAGCTGTCCAAGAC
CGACCCGGCGAGCCTGGAGACAGGCCAGGACAGTGAGGGATGACTCAGGCGAGCCAGAGG
ACCTGGGGTCCCGGACCCTGTGGATGCCCGATCAGGGGAAAGTCGAGCTCCAGCC

Sequence 1879

GTCCGCACAATTGAAAACCTGGGAAAAATAATCTCGTGGTTTCGGTTTGTAGTTTGAGACG
CAGTCTCACTCTGTGCGCCAGGCTAGAGTACGGTGGCCCAATCTCAGCTCACTGCAACCT
CCAACCTCCCAGGTTCAAGCAATTCTTGCCTCAGCCTCCCGGGGTAAGTGGGGATTAC

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AGGCGCGCACCACCACGCCAGCTAATTTTTGTGTTTTTAGTAGAGATGAGATTTTGCCA
TGTTGGCCAGGTTGGTCTTGAACCTCTGACCTCAAGTGATCCACCCACCTCGGCCTCCCA
AAGTGCTGGGATTACAGGTGTGAGCCACCGTATCTGGCTCTCATATTTTTATATACAGA
TTGAATATCCCTAATTTGAAAACCTGAAATCTGAAATCTTCCAAAATCCAAAACTTTTG
AGCAGTTACATGATATTTGAATGAACTGCTCATAAGAA

Sequence 1880

GAGGAAACCAAAGTGCTCTGTATCCTCCAGTCTCCGCGCCTNCACCCAGCTCAGGAACCC
GCGAACCTCTCTTGACCACTATGAGCCTCCCGTCCAGCCGCGCGGCCCGTGNCCGGGT
CCTTCGGGCTCCTTGTTGCGCGCTGNTCGCGCTGCTGCTCCTGCTTGACGCCGCCGGGG
CCCTCGCCAGCTGCTGGGTCCTGTCTGCTGTGCTGACAGAGCTGCGNTGCACN.TTGT
TAACGCGTTTACGCTGAGAGTAAACCCCAAACCGATTGGTAAACTGCAGGTTGTTTC
CCGACGGCCTCGCAGTGCTCCAAGGTGGGAAAGATGGTANGCTCTCCCTTGAAAGAACCG
GGTAAGCANAGTTTATGTCTGNNACCCCGGAANGCCCCCTTTTTCTTAAAGGAAAAGG
TGCATCCCAANNAAAAAATTTGGGACCAGNTGGGGAACCAAGGAAAAAA

Sequence 1881

GCGTCCGCCCTGGCTCCTCCAGCAAGACCTCGTCTTTGCTTGTCTGCTCAGATGCTGGT
CATCTGGGCATGTCCCCAGTGTTGACTCTGGAAGGGGGCAGGCCCTTTGGAC
CTGCAGTTGGCCTCAGCAGAAGGCCTTGCCCTTGTTGTATGTGACTCCATATCCCGGGAGCA
GTTGACCTTTGCCAAACACTTTACAGTTCTGGAGGAGGAGGTAAACATAGATGCCTGGGCC
TGATGGTGGGGCCATACCCATGTGTGCGCTCTCACTCTGGCAGCCTCAGAGGCCCTTG
TGCTGGCTCCCATCTCCCTCCATTTGCAGACCAGGAAGGAAGAGCAAGCTGTACAAAGG
GAAGCAGAGCCTGGGGTGGGGTGTGAGCAGGGTGACCCCTCATCTGAAAGGCCCAAACCA
GGGGGAAGCACCAGCCTTAGTGACGCCCTCTGACCCACCTTAGAATGGAAAGCCTT
CACCTGCAGCCAGGCCTTCTCCCCG

Sequence 1882

AGTCGCCCCGCGTCCGGTGATTCCAGGGTGCAAGGGATTTCATATCCCAGAACGCTTT
AAGTGACACCTGCAGGATAAAGAGATACCGTTACATTATTAATGATTCTAGGGATT
ACTGGGGGATATTTTTGTTGCTTTTACTTTTATGTTAGAGCTACAAAGAACAGTGATT
TTTTTTTTTTCTCCCTTCCCCATTGAGAACATTATACATTGGGCCATTTTTCTTTCTC
CCAAAGAAGATTGATGATAGTCAGACTGAACTGTGTGCAACAGGAAAAGTCAAAGGGA
AAAGGCAGCTGATGAGGTTTATGTTTACATGTTCTACATCATGCAGAGTAGCTTGAATC
TAGTCTGGAGAAAACCTGGATCAAGATTCTAGCCCACTGGAGTTGCAAGGAATGAGAGGCA
AAAATTCTAAAGATTTGGGTTATATTTTCAACTTGGGGGACAGAGAGAAATGGAGAGCAG
GAATTACAGTTCCAACAAACATCATGATAGTC

Sequence 1883

CCACGCGTCCGACTAGTTCTAGATCGCGAGCGGCGCCCTTTTTTTNTTTTTNNCACGCTT
AATTCACTTTATTTTTCTTGNATAAAAAACCTATGTTGTAGNCACAGNTGGGGCCTGAGT
CCGNTGCACGGAGACTCTGGTGTGGGTCTTGACGAGGTGGTCAAGAGNAACTCCTNGATA
GGGAGACTTGGGTGAATACANTNTCCTCCANAGGTCCGGGGNGTTCATGGTATGCTGTA
NGGTCCTTAAAAAATGGG

Sequence 1884

GTCCGAAAAAATGATAATGTGCATAAAATTCAACCCAGCTTTCAAAGTCCAGTCAAATA
TCAGAAATCATGAGGTCCAATGGATTTGTTTAGCAAATACCGAAACAATAGTTATTGAC
CACAGTATACCAATGGAAGAGACCAGCACCTGGGCGTGGACCCAACAGAGCATTATTT
GAGAATGGCAGTGAGTTTCCCTCAGAGCTGGAGGACGGGGACGACCCAGCAGCCTACGTC
ACCAACCTGTATATTACCACTGGTCCCCTTCGAGACAGACATTTGGGACTGAACCTCT
CTATCAGGCCTCCCCCGCCTCAAGCTGTTCACTGCC

Sequence 1885

CGCGTCCGCACAACAAGACACTCCAATTGTGATTTGAGTTGAGGATCTCTGCCTGCCTTC
CTGCCGTCTTCTTCTTCCCCGATCCATGCTACTTTTAGGGGCTGCGGAGAGCAGCAGC
AGAGCTGAGTAATGATACAGGGCACCACGGAGAGAAAGTAGAACCATTTCACTCCTGGGA

TABLE 1
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AGATGGGGTATTTCCCACTTCCAGCAACGAAATAACAAATGAAAAGTTGCATACTTATTG
ATGTATTGTATGAGCCAGTAGCATTATGTACAAAACAGAAGTCAATGCAACAGTATGT
ATGTGTGCCTGTGTGTGTATAAAAATAACCATTGAAGCTAACTTGCTAATGTACTTAGGC
AAGCCACTTCCCATCTCTGGGCCTCGTCTTCTCCTCCCTCTAAAATCAAAGAGCTGAATTA
TGTGATCCTTGAGGTCTCTTCCACTTATAATACCAACTGTCTTGTGAGACTGGCAAATTA
TATTGGCCTCTCCTTATGTGGTGGGTTTTTTTGGGAGGGNCATAGTTNCTTATACACAGG
ACACCTGCATNATCNAAGGGCTTTTTTTCTAAAAAAAAAAAAATG

Sequence 1886

CGTCCGCTCCTGAGTAGCTGGGATGACAGGCGTGCACCTGGCAGCTTTTTCAAAGTGTTG
ATGGTAATCTGAGGCAATCTAAGGGAGTCATTTTTAAGTGACTTTATACAGAAAAGATTG
GTAAGAGCCAAGGGGTAGAAGTGGCATAAATGTCTAAAGCAGGGAAGTGACAGGGACTTT
CATTGTTCTTGGCTGAGGAGAAGCGGGAGTGGCTGATGGAAGCACCTAAATGATGCCTTT
GTCTGTGGGAAGGCAAATGATGCCCCAGAGCTCTAACCAAAGGTTTTGCAGCCGCCGAAA
AACAGGAAAGTTGGGAAGCGGGGGTAGGACTACACTGAATCATTAAACAGTGCTGTAACT
ACCCATGTGGCCATTAACAATGGACCTTTGGGGGAGTTTTCTAAACGATCACTCTGGA

Sequence 1887

CGTCAAACACCCGCAGGCTGTCGATTTTCATCATCAAAGAAATCAAGACGATAAGGGCAGC
TCACTCCCCATCGGGAAGAGATCCAGCAACGCGCGCGCTGGCGTATTCGCCGTGCTCC
ATCACCTGGTCAACATGGCGATAACCGGCGCTGTCCAGTTGGGTTGTAATGCATCTCGT
GACAGGCGCTGACCTTTTTTCATCACCAGCGCATGACCGTGGAGAAAACGTGTGTGGGCAA
ACGCGCTGCATAAGCGTATTCACCGGAACAATCAGTACGCCACGCTGCATCGTCGGTAGC
TGGTAAAGGGTGGAAGGCGCGAGGAGATAATGTCCTGATGAGGCGAAAAACGTGCTGAG
GGAAGAGTTTTCCAGTCCGCCAGATTTCATCACCATTGATCGGTAAACTGGCTGATTCA
TCATGCAAACGCAGAGCATTTCATATCTGGTGCAATGAGTACCACCGGACCGGCGTGA
CGTTCGGCA

Sequence 1888

CGCGTCCGTTATTTTTATGCCCTTTTTGTGGATAAGATTCTTTAGATAAAATCTAAAG
AATTTAAGTGACTTTCTCCAGGTCATGAAGATTCAATGGGTAGAATTGAATCAGAATTG
AAATGTTCCAGATTCATATCTTGTGTGTTTGATAAAATTCATGGCTTCCAAAGTAAC
TGAACACTTCCTTTGGGCCCTTGGAGGGAATAATCCATTTTTACTAATTACACTTTTTT
TTTTAGACATCTGGCAGTTCTTTGAACCTTAAACATATTCTCATGGCCATAGTTCCAAAT
AAGCCCGACGCAGTTGCTAAAAATCTTGCTGCACTGTTGAATACTAATAATGCAACATT
ATTGGATGTTTTGCAATTTGATGACCTTCATGATTCATTTATAAGTCTTTGTAAGTGCT
TAAGTGACCCCTCACTAGTGAAAATAATAAATGTTCTATATCATTTATTATTATTGTG
TATTCTCTACATGATATATTTTTT

Sequence 1889

CCGCGTCCGGGAGGATGGACGTACTGGTGTCTGAGTGCTCCGCGCGGCTGCTGCAGCAGG
AAGAAGAGATTAAATCTCTGACTGCTGAAATTGACCCGGTTGAAAACTGTGGCTGTTTA
GGAGCTTCTCCAAATTTGGAGCAGTTACAAGAAGAAAATTTAAATAAAGTATCGACTGA
ATATTCTTCGAAAGAGTCTTCAGGCAGAAAGGAACAAACCAACTAAAAATATGATTAACA
TTATTAGCCGCTACAAGAGGTCTTTGGTCATGCAATTAAGGCTGCATATCCAGATTTGG
AAAATCCTCCTCTGCTAGTGACACCAAGTCAGCAGGCCAAGTTTGGGGACTATCAGTGTA
ATAGTGCTATGGGTATTTCTCAGATGCTCAAAACCAAGGAACAGAAAGTTAATCCAAGAG
AAATTGCTGAAAACATTACCAAACACCTCCAGACAATGAATGTATTGAAAAAGTTGAA
TTGCTGGTCTCGTTTTATTAATGTCCACTTAAGAAAGGA

Sequence 1890

CGCCCCGCGTCCGCTAATTATAAGCTTTACAAGTATTTATTTTATAAGGCTTAGACAGAA
TTATTGGAGTTTTAAATTAAGTGATTGGAAAAGAAAGGATGGTATGTGTATGAAATGTT
AAGATCTACGCAACACTGCTATTTTTTCTTTAATATTTGTGCTGCATAACAAAAGCC
ACTAGACTGTTACTGTCTGTCTGTCCATGTGTTAACAGCATTTCTTAATGATGTATATA
TGGAGTGGTCTTCAATCATAGTGAAGAATTTAAAGAGAAAGTCAATTGTATTGGCATT

TABLE 1

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TAATAAGAACAAAATTAGTTCGTCTAAGGGGACTGGCTGGCCACATATTTGTTCTTGCC
CATATGCTTTCTACTTCTTGTTCTTATTATGAAATTATGAATTTGAAGCCTCTGAAATGG
TGATCAGTTTTCAACATCTTTCAAAAACAAAATTACTA

Sequence 1891

GCGTCCGCGGCTGCTGTGTGTGAGCAGTGGACACGTGAGGGGGGGGTGGGTGAGAGAGAC
AGGCAGCTCGGATTCACTACCTTAGATAATATTTCTGAAAACCTACCAGCCAGAGGGTA
GGGCACAAAGATGGATGTAATGCACTTTGGGAGGCCAAGGCGGGAGGATTGCTTTGAGCC
CAGGAGTTCAAGACCAGCCTGGGCAACATACCAAGACCCCGTCTCTTTAAAAATATATA
TATTTTAAATATACTTAAATATATATTTCTAATATCTTTAAATATATATATATATTTTAA
AGACCAATTTATGGGAGAATTGCACACAGATGTGAAATGAATGTAATCTAATAGAAGCCT
AATCAGCCCCCATGTTCTCCACTGAAAAATCCTCTTTTTTGGGGGGTTTTCTTTCTTTCT
TTTTTGAATTTGCACTGGACGNGGACCGTCAGCCATGTNCAAGGATCCCCAGGGGGGGG
GNNGTCAAAATGGCTATTGGAAAATTGGGGTGAAATGNATGCCTTTTCACTTTTGGGA
TAAATAAAACATGTAAAAAATGNTTTCAAAAAATTAATTAATAATTAATTAATTC
NNAAAAAAAAAAAAAA

Sequence 1892

AGAGGATTCCCAGGGTTTCCAGGGGGCCAAAGGAGACAAAGGTTCAAAGGGTGAGGTGGG
TTTCCAGGATTAGCCGGGAGCCAGGAATTCCTGGATCCAAAGGAGAGCAAGGATTCAT
GGGTCTCCGGGGCCCCAGGGACAGCCCGGGTTACCGGGATCCCCAGGCCATGCCACGG
AGGGGCCCAAAGGAGACCGCGGACCTCANGGCCAGCCTGGCCTGCCAGGACTTCCGGGAC
CCATGGGGCCTCCAGGGCTTCTGGGATTGATGGAGTTAAAGGTGACAAAGGAAATCCA

Sequence 1893

TCCGCCCGCGTCCGCTTTTTCCNAACAAGGAGCATCCAAAGACACAGTGACTTGAGCTA
TAGATAGTAAAAATCATACGAGAGTTGAACTGAGTCAGGTTTAGGAAGCAAGTTTGGTTG
CATCAATTAAGCAGGCTCTTTCAATTGACTGATGCTGGGGCCTTCAGTTTTATTCTCAG
TATAGATTGCCAGTATTGTTAAGAGTATCCAAAGGCCTTCTAGATGGAGACAGAATAAC
TGACTTGAACATACAGTGTGCCTGTAAAGTGTCCAGGCTCAGAGCTGGTGAAAACCTTCT
GTTGGGCGTGTGCAGGGTTAACTCCTGAAGTAACTTGTGAGGACTTCAGTGCTTGCTGG
TGTCTGGGCAGCACCATGAATGCCTTTACCAAGACATGCCAAGTTGGATCCCCGAATG
AAGCAAGAGTGGCTTGTGGGTGTGACCCTTGCTCCCTGCTACACAGAAGCATCGCAAGGG
CTGCCTGTGTNGGTTTCCAGATGAAGGGTCTTGGGTCCCGGAAGCTTGTGGTTGAGAGC
TCAAGTGGGACC

Sequence 1894

GTCACCACGCGTCCGCGGACGCGTGGGCGCACGCCGGCGGCGGAGGCCGGCTCTGCGC
TTCGGGCCGCCCCCTCCCCCACCCTGCTACACCCGGCACTTACTTCGGCTGTCTCCGC
TGCCCTCCAGCGGAGACGCAGCTCCTCAGGCGCCCGGCGGTATTTGTTGGGTGGCGGGCG
TCAGGGATTTCGAGTGGCCTGTGGTCCGCGTCTCGGGCCACTGGTGCGCCCCCGCGGCA
GGCAGAGCTCACGCTCCTGTCCCCCGGCTGGTCCGGGGTCTGGGCGCCGCGTTCGACGGCG
GCTCCGCAGGACGCGCAGACCGGGCCGACGCCATGCC

Sequence 1895

NCCCCGCGTCCGATTTAAATGCCCTAAATTTTAAATTCATACCTTTCCATGATTCAAAAT
TCAAAAGATCCCATGGGAGATGGTTGGAAAATCTCCACTTCATCCTCCAAGCCATTCAAG
TTTCTTTTCCAGAAGCAACTGCTACTGCCTTTCATTTCATATGTTCTTCTAAAGATAGTCT
ACATTTGGAATGTATGTTAAAAGCACGTATTTTTTAAATTTTTTCTAAATAGTAACA
CATTGTATGTCTGCTGTGTACTTTGCTATTTTTATTTATTTAGTGTTTCTTATATAGCA
GATGGAATGAATTTGAAGTTCCAGGGCTGAGGATCCATGCCTTCTTTGTTTCTAAGTTA
TCTTTCCATAGCTTTTCATTATCTTTC

Sequence 1896

CGACCCACGCGTCCGCCNCGTCCGAGGGGCAACAGCAGAGCCTACAGCAGGGGGGCACA
CTCCACCGGNTCCAGCCGCCTGCACGACCTCTACTGGCAGGCCATGAAAACCTGGGAGT

TABLE 1

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CCAGCGCCCCAAGTTGGAGAAGAAGGATGCCAAGGAGATCCCCAGTGCCACCCAGAGCCC
CATCAGTAAGAAGCGGAAGAAAAAGGGATTCTTGCCAGAGACGAAGAAGCGCAAGAAACG
CAAGTCAGAGGATGGCACGCCAGCGGAGGATGGCACACCTGCAGCCACCGGCGGGAGCCA
GCCCCCAGCATGGGCAGGAAGAAGAGGAACAGGACAAAGGCTAAGGTCCCAGCCCAGGC
AAACGGGACGCCAACCACCAAGAGTCCAGCCCCTGGCGCCCCAC

Sequence 1897

ATTATATACTTCTGAATGGCACCTTACTTTTTGGAACAAATCTTCTGTTATTTACAAA
TAATAATTTTTAAAAACATAAAAAAAAAAATCCAAAGCTGCTCTCGATAATAGTCAACAT
TTGCATATATATGGAATTTCTTACTTTTTCTCCAACTCTATTTAATAAACTTATTT
TAATGTTTGTGTATTTTCATGTATAATTGTGATCTCAATTATAAAAGTTTAATTCAGCATG
TCTTTGAGCCAATATAATTACTGCACACCCACTAAATTGGGATCAGCCATTATAAATAAT
GTAGTTTTAGAATAATAAACATGACACATATATATATATAAATATATAGTATATATT
GGCACATCGGTGAAAGTTTAATATGTGCAGGAAGGTTTTTTCTTTCTTCAAGTTAAAAA
TTATTTTTGCCATATGTAATTTGGTGTTCAGGCTGGTCGAGAGGATAAAAAATGGAT
TTTAAATCTGGGTACCGGATGGATCTTCNGGNGGTTAAGAAACACAGGGGNTGNGGACC
TTCCTTTTT

Sequence 1898

CCGCGTCCGAATATAGTATTTTTTAATTTTTGTGGGGATGGATTCTCAAATACTTGTGAT
TTTAAAAGATTCTAAAGCTAAAACACAACCTGATTTTAAAAAGAATGATTCTCCTTACAC
AATTATAAATATTTGCAGTAAATATTTTCTTATAATACTGTTTTGACCCCATTTAAAAA
GTATTAGATTATATTCCTTTGATCCAATGAAAACTGAACCTTATAAATGGTTAGCTGAAA
GTAGACCTTATTCTTGCTCTTTTAGAAGAGTAAAGATTTGTCCTAGGGAAGATGGCTG
ACTTCGGTTCCCAACATGCCGTATGCATTTAGACTGTAGCTCCTCAGCCCTGTGGACACA
AAATTTGGACAGCTTATTAGGNTACCGTTAGCAATGCTGGACCGGTTTCTTCAACACTAA
AGANTTTCACCGTTGNAACAGATTTCTCGTCTNATGGGGNCTGGTAAAAATGGT

Sequence 1899

GCCCTGGAGGCTACTTGTAATCCTTAGAAGAAAAGCTGGATCTGGTCACGAACAAGCAG
CACAGCCCCATCCAGGTTCCCATGGTGGCCGGCTCCCTCTCGGGGCAACCCAGACGTGC
AACAAAGTGCGATGCGCTGTGCCTGGGCGTCCGCAGAACACCATTGTGGTGAAGGTGCCG
GGCCAAGAAGACAGNCACCACGAGGACGGGGAGAGCGGCTCGGAGGCCAGCGACTCTGTG
TCCAGCTGTGGGCAGGCGGGCAGTCAGAGCATNNGGAGCAACGTACGCTCATCACCCGTG
AACTCGGAAGGACTACCCCAATGGCACCTGGCTGGGCGACGAGAACAACCCC

Sequence 1900

NCCACGCGTCCGCCCCGCGTCCGGGCCGCGCGCCTGCTCTGGGCTCTCCGCGTGCCGC
ATCGCTTTCTTTCTTCTCTGGAGCAGCTATGGCGGCGGCGAAGACCCTGAACCCCAAG
GCCAAGGTGGCCGAGCGCAGGCGGCGCTGGCGTTCAACATTAGCGGGGCGCGGGGTCTG
CAGGACGTGCTGAGGACCAACCTGGGGCCCAAAGGGACCATAAAGATGGCCTTCATCCCA
GAATAATCACTGAAGGATTTGAAGCTGTGAAGGAAAAGCCCTTCATTTTTTGAAGAAGT
CAAAGTAAGCAGAGAGATGGACAAGGAAAC

Sequence 1901

CCACGCGTCCGCCCCGCGTCCGAAACATGAGGTTCTCTCTACTGGTCTCTTAACCTGTGG
TGTTGAGGCTTATATTTGTGTAATTTTTGGTGGGTGAAAGGAATTTTGCTAAGTAAATCT
CTTCTGTGTTTGAACCTGAAGTCTGTATTGTAACCTATGTTTAAAGTAATTGTTCCAGAGAC
AAATATTTCTAGACACTTTTTCTTTACAAACAAAAGCATTTCGGAGGGAGGGGGATGGTGA
CTGAGATGAGAGGGGAGAGCTGAACAGA

Sequence 1902

GTCGCCCCGCGTCCGCCCTCCCTGGCAAATAATATAATAACCCGTGAATTTTCAGGAATT
TAAAAATTANGCTTTTTTCCACTTAAAGGAGAAAAATATTTGGGACTAGCAGCAGAGGCA
GTAAGAGATGTGAACCTTGGTGAGCTCTGATACAGTGAGAAGAGATTATACTCATGAAAG
AGAATGTTAGTGTTACAGAGAAGCAGCCGATAGCAAATCGACTGTAGAGACTTGGCGGCG
GTGGCATTGCCCCAGGTCGTGAGCAGTGTGGTATTATCTATGAGAACTTGAGCGACAGAG

TABLE 1
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TATTTCTTGATGAATTTATAGATCATTTGAGATGTTGAGTTACTTTAGTTTAGTTTTGTT
TTGTTTTTTCAAATAAGTAGAGACTATTTGTAACAAACGAGGAAAGGGAAATGAAATGGG
GCGTGTTTGATAGCAATAAATTTGGTTTCTTTTTAAAGAATTCTAAAAAGGGTCTGAGAC
CCTGNTAGCATTAATTTTTTGAGTGCCCTTCTTTTTNCCCTTCCCCTCCCTTTTTNTT
TTCTCT

Sequence 1903

GCGTCCGCCCCGCGTCCGGGAAACCCCTTCGATGACCTCCAGAGCCTCCCAAACGACGT
GATCTCTTCCCTGAAGAACAGGCTGAAAAAGGTCTCCACAACCACTGGGGATGGTGTGGC
CAGAGCGTTCCCTCAAGGCCAGGCTGCTTCTTCGGTAGCTACCGAAACGCTCTGAAAAT
CGAGCCGGAGGAGCCGATCACTTCTGTGAGGAAGCCTTCGTGTCCCACTACCGCTCCGG
AGCCATGAGGCAGTTCCTGCAGAACGCCACACAGCTGCAGCTCTCAAGCAGTTTATTGA
TGGTCGATTAGATCTTCTCAATTCGGCGAAGGTTTCAGTGATGTTTTGAAGAGGAAAT
CAACATGGGCGAGTACGCTGGCAGTGACAACTGTACCATCAGTGGCTCTCCACTGTCCG
GAAAGGGAAGTGGAGCAATTCTGAATACTGTAAAGACCAAAGCAA

Sequence 1904

CGTACGGGGTGCGGTTGGCGGCGGCGGCTGGGCCGGGGGCTGCCGGCTGCGCTCGGGCCG
TGCGCGGCGGCGGTGCGGNACGCCATGGACTTCAACATGAAGAAGCTGGCGTCGGACGC
GGGCATCTTCTTCACCNCGCGGNGCAGTTNACGGAGGAGAAATTTGGCCAGNCTGAGAA
GACTGAGCTTGATGCCACTTTGAAACCTTCTGGCCCGGGCAGACAGNACCAAGAACTG
GACAGAGAAGATCTTGAGGCAGACAGAGGTTCTGCTGNAGCCCAACCCAGTGCCACGAG
TGGAGGAGTTCCTGTATGAGAAGCTGGACAGGAAGGNCCCCTCAAGGGTCACCAACGG

Sequence 1905

CNCGCGTCCGGTGATCTTGCCCATTGATTTCTAAATGTATTAACCTACTTAAATTAATCC
TGAATCTTTTCCAGGCTTAAGTGGGATAATGTTTTATTGTAGATGCATATTTCTGGCT
CTACCCAGTCTTTCTTTGAAGACTTTATCATCCTATTTTCTGAATCCAGTGGCTGACTTT
AATCTTCTCTGGAGGAACTAGATAATTTCTAGACTAATGCTTACACTCATGATCCAGATT
GTAATTTCTGAATCCTTCTTCCAAATAGAATCAAAACAAGAAAGGGGAAAGCCTCTCAA
AGCACTGTGCGTTAATAATGAAACACTCTTTTTTCTAATCCAAGGAGGGTTTCATACT
TTTTCTTAGTTTCTTCCCTTCTCCCTTCTGATCAATAATTGTAATAGGGAAATTTGCAA
TTGTGCCAATACTCAGATTCAATACTGAATCTTCTTCTGATTGGAATTCAAATCCAA
GGTTAACTAGCTGTATGTTTCCAAAACAATCTTATTGGATATGGATTTTCTTAGGGG
GAAGGTTCCAGAAATGATT

Sequence 1906

GANCAGGCTCAAGAGCAACATGGAGGTCTGCACTTAATCGCTCCTCTCCGGGGGCGGCCA
TACCGAGGAGGCGTCTTCCGTGCAGGCAGGCTCTCCTGGGGACCTCAGAGATTCTCTC
CAGCGGCAGCGGAAAACGACAAATGGGTGGATTCCGGTCCAGATTCTGGTAGGAGGGAGT
TTGGGATCGAGATCTGGAAGAAAGCACTAGACTGGAAGAGGACGCGATGGAGTCGGAGCC
GCTGGCGGGGACAAAAACAGAGGCCGGGGAAGGCGCGGTGGGAGGCAAGGCACGGATG
GACTTTACCTGCGCACGCGTGCAGCCATCTCCGCGCACAGTGGTGGCCACCGCGACTGG
TGCTGAAGTGTTGGCCGCGTGCCGGGCGCTCCGCTGGGACCCGGGTGCTGGCCCTGAGT
CTCAGCTTTCTCATCTGTACGGTTGGGACAAGTACAGTAACCCTCTCCCGTCAAGACGGG
CC

Sequence 1907

GTCGACCNCGCGTCCGAACATCGTCAACTACGGCATCCAGCCACCGTGACATCGACGA
GTGCATGTTGTTCCGGTCCGAGATTTGCAAGGAGGGCAAGTGGTGAAACACGCAGCCTGG
CTACGAGTGCTACTGCAAGCAGGGCTTCTACTACGACGGGAACCTGCTGGAATGCGTGGA
CGTGACGAGTGCTGACGAGTCCAAGTCCGGAACGGAGTGTGTGAGAACACGCGCGG
CGGCTACCGCTGTGCTGCACGCCCCCTGCCAGTACAGTCCCGCGCAGCGCAGTGCCT
GAGCCCGGAAGAGATGGGACGTGGACGAGTGCCAGGACCGGCAGCCTGCGCCCTGGCC
GCTGCGTCAACCTGCCGGGCTCCTACCGTGNGAAGTGTCGCCCGCCTTGGGTGCCCGGGC
CCTCCGGCCGNGATTGCCAGTCCCGAGAGCCCGGCCGAGCGTGCCCCGGAGCGGGCCGA

TABLE 1
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ACGTGTGCTGGAACCACGCGGAAGAGGACGGNATGTGCCCTTGCCCCCTGGCCCCGGGCC
Sequence 1908
ACCACGCGTCCGGGCGGCCCGGCCAGGCCCGGCACTTCCTCGTCCTCGGCCCGGGTGC
CCTGCCCCCGTCCAGGAGCCCTAGGAGTGCTACGGGGGGCGGAGCCTTGCCCGGGCCGC
TGCCCCGTCCCTGGATTGCGGGCTGGACGCAGCAAGCAGGNGCGCTGTGTCCCAAGCTC
CCCGTCCTCGGGGGAGCTTTTGAAGAGTCCCAGATGGAAGCGACCAGGCTCCGGCAGAA
GGCAGAGGAGCTAGTGAAGGACAACGAGCTGCTCCACACCTTNTCCCTCCTTGGGCTC
CTTCGACCCCCTGGCTGANCTCACAGGAAAGGACTCAAATGTCACAGCATCTCCACAGN
CCCTGCATGCC
Sequence 1909
ACGCGTCCGGAAGGGTGTTACATGTGTCTCTTCAATACCTTTGGTTTTGGGAAGATCTCA
GGAACGGCCTGCCTCACCCTCTATGTACAGCCCATAGTATCCCTTCACTACAAATTCTCT
GAAGACCACCTAAATATCACTTGCTCTGCCACTGCCCGCCAGCCCCCATGGTCTTCTGG
AAGTCCCTCGGTGAGGATTGAAAATAGTACAGTGACTCTGTCTACCCAAATGGGACC
ACGTCTGTTACCAGCATCCTCCATATCAAAGACCCTAAGAATCAGGTGGGGAAGGAGTG
ATCTGCCAGGTGCTGCACCTGGGACTGTGACCGACTTTAAGCAAACCGTCAACAAAGGC
TATTGGTTTTAGTTCCGCTATTGCTAAGCATTGTTTCCCTGGTAATTCTTCTCGTCTA
ATCTCAATCTTACTGTACTGGGAAACGTACCCGGAATCAGGACCGAGAGCCCTAAATAAG
TCACACAGCACCTTGAAAGGGGATTCTGGNCTACTTGGATTGGCACAAGAGAAAAAG
CAGGAGGGAAAGG
Sequence 1910
GCGTCCGCTAGTTCTAGATCGCGAGCGGCTGCCCTTTTTCTTTCTTTTTTTTTTTTT
TGAGACACAGTCTCACTCTGTACCAGGCTAGAGTGCAAGTGGCACGATCTCAGCTCACTG
CAACCTCTGCCTCCCAGGTTCAAGTAATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGAC
TACAGGCACGTGCCACCACGCCAGCTAATTTTTGTATTTTAGCAGAGATGGGGTTTCA
CCACATTGGCCAGGATGGTCTCGATCTCAACCTCGTGATCCACCCACCTCGGTCTCCCAA
AGCGCTGGGATTACAGGCGTGAGCCACCGCGCCAAGCCAAGGTCTGCATTTTTCTTTAGA
ACTCAGAACACCCAATAGTCCTAGGCCCCCATCCTCGCATGGCAGCAAGCTAAATAAGCA
TNTTCCCACTGCGAGTTGGGG
Sequence 1911
GTCCGCTGAGAATGGATAATCTCACTGCAGGTATTCATAATAGGCTTGGATTAAAACCA
GGGACAATGGGCAGCAATAGGCCATAGGTTAAGCAGCAGCAACTAGTCACCACTGGACTG
TCTTCTTCTCCCTTCCCATATCCACATTCTCCTAAACATGATGTACGTGTAGCAACA
GTCTTTTAAAGTCAGATGGTCAGACTAATTATTTTACAATTTAAGTGTAAAGTGTATGAC
ATGAATGGAATCTGTGAATCGGAAAACCTTACGTAACAGCAGAGAATACGTATGTTATATG
GAATAACCTGAGTTGAAGGTACAATTTTTTTCCAGCTCTTTTATTCCTTTAACTGCTTA
ACAAAAGAAAGAGTCTCCAAAGTTTAAAAAACCTTTGAAAAATATACAGCTTGATATTAT
TTACATAAAATATGAATCCAGGTTCCAATATCAAACAAACATTGCTATGTCAGAAACACA
GTGGAAGGCAGGAACGTAACCTCACTGCCTTTTAGAT
Sequence 1912
CCCGCGTCCGCTCTTTTCTTCTCTNTAAAGTGAATTATTCCTTTTTTTGTTTTATGTAA
CGTGATATATTCTTAGTTTTCTTGAAATCATTGTAATGTTAACTTTGTTGTTTCAAAT
ATCTTGGTGATTGCTTCATTATCTCTTCAACAAAAAAACCTTTAATTTTGCCATTGAAA
CTGTAGAACTATGCCATGCTTTTATTAGAAGCAGTGCTCTGTGTTAACAACAAGAATGGT
GTAATTAGAATTGGGATGTGGATTTTACTGTATGACAACACATTTACAGTTCTGTAATG
CAAGGATGCAGTTTAAAAATGTGAAGTAGTGATGGTTTTTGAATAAGCTTTAAATATA
GGGATCTTGAAGGCTCCCTGGGGTAACTATTTTATACTTAGATAAAATGGCTAGTCAT
ATCTGTGTGGTTTGNAAAGGTTATTTTTTAATATTTTAAGATTACAAATTTACAAATGT
AGAAATGAGCCCAACTATTTAAATTTTAAACAGTAAAAACAAA
Sequence 1913
CGACCCACGCGTCCGCTTTGAAGCAGGAAAAGACACGTCTCTAGAGCAACATGGAAAGGA

TABLE 1

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TCCAGTATTTGTTTTAGGCAAAAGCAAGCCTCCAAAAGCCCCCTTGGTTCTTCTCTGTGT
GTCTCGCCCCCTTCTGCCTTGTACACCAGACTGCCGGCAAGCAAGCGGGGAGGTGGCGAAC
AGCTGGGATCCTCCAGTGAAAAGTTTGCTCAGCGGAGAGATGTCAAGAGGCTGGGATTG
TCGCCTATCGGGAGGTGGGGAGCTCTCTCACTCACACTTCCTGGGAAATGAAGGAGAACT
AATAGGCAGCCCGCATTTGCAGCCAGCCAACCTGGGTGGTATTCTTGAAGTGAAGCGCT
CATAAATCCCTTCTGGGGCCAGAGCCGGTTTCAACAAGCTGCAGGATTTGGGTGGCCTGCC
TGCTCTTTGGGAGCGGGCTTGGGAAGCTGAAGAAATTGAATCAGGACCTCAGGCCCTTTA
CAGACTCCC

Sequence 1914

CGCGTCCGCCCGCGTCCGCTCAGAAACCCCTGCCCTTCCCTTCAGAAAACGATGGCAG
GCATTCTCTGAGTTTACAAGCAGAGACTCACTCCAACCCAACTAGCTGGGAGTTCAGA
ACCATGGTGGAAATAAAGAAATGTGCATCTGGTCTCTTCTGTTGTTTTATTTTATATCAG
ATTAATTTCTTTACCATGTTGGCTAAGTCTAAATATTAGAGATGAGGCTGTGCCTACTC
CCTGGCCAGCTCTGCTGATAGCCTATGATGGGTTCCAATGGGAAATGACTCTTTACTATT
AAAAGACAAGGAAAGCTCTGACTTCGTACTTCTCTGATGAATGGCAATGTAAATGAACAA
GGCTCCATGTGACTGGAGCATGGAAGTGAATGCTACTTTCTTAATTTAATCTGCCCTGTC
CTACCTGCTCCTCTGATTGTTAGCCATCACATAACTTATTGAATGCTTGCCATGTGCCAG
GCACTGTGCTGAGTGCCATACATACATTTTCAATTAATTATCCAATAATCCTACTTACTA

Sequence 1915

CCGCGTCCGATTCTNTAACATCTCTGTGAGGAAGGAATTTTTATCCTTATTTTACAGATG
AGGAAGCTGTTTGGAGATAATTTAAGTGACTTGCCCTGGGGAATCTAGCCAGTAGTAGAGT
ACTGATTAATCAGGTGCTGACATCTGCTCTGCTTTGTGTATGTAATTCAGCAGTGCTTCA
AAGATCCAAGAAGCTGTAGCAGATCTCAATACACTCTCCTATAAAATTAGTGAATAATCA
CCATGACAAAATTGGTATGGCGGAACAGTCATTATACATTATTTAGACTCATTCTTCTT
CCAGTGCCCTTATGATTATTTCTACCTTTACCATTGG

Sequence 1916

CCNCGCGTCCGCCCGCGTCCGCCCGCGTCCGATATTGCTTCAGAAAACCTGAATGTGTA
TGTCGGTCATATTGCCCTTATAACCATGCTAATATCTATGCTTTATACATACTCAAACCT
GCCTTGCTTAAAAAATACTACTACATACTTAAATCAGGAATTCTAGCCATCTCACAG
AATACCAACTAAAACTAAGTGCATTGAGATCTGAGATTGGTAAACCCAGATTCATTTACC
ACAGCTGTAATTAAGTTTTAGAACTATTCTCTTTTGGGGAATCCATTGAAGTTAAT
TTCTGTTATCTTATTAGAAGAAATGATGTTGATATGTGTTTCAGATTTTCCATTTGAAA
TCTTATAATTAATTTGATTATTTACTGTAAGTAGGAGGTATNAATGACACTCTTAAATT
GGAAGGAGGGGTGTTTTAGTGTCTGTNTTAGGTCAAAATTAGTGATTCTATTTTTATCAA
AAGTTTTATCCTGAAGTTTCAGGACCACTCTTCTTAATNAACTTGTTAATGGGAAGCGA
GCCTTATGAACATTTAAAAAT

Sequence 1917

CGCGTCCGCAGCAGTAATCCTTTAATAACTGGCACGAGCACTTTATTCTTCTGGTGAGCT
CCCTGAATATTTATTTTCTGATTATAAATTTTCTATATTAGTAGCATTTTTTAATTATT
ACTTCTTCACTATAGAGCATTTACTTTTAGTCTCTAGATGTATTTTTGGAATGCTGTAC
TTGGCATAACATAGATTAAATCATAATGCATGACTAAAACTCCTTGGATTTATTTCCC
ATTTTAAATTTTTAGCGGTAAGTTCAGATTTATAATCTTTCTCTAGACTTCCATGGTCT
GAATGTTGCCTGCTGAAGTAGCAACCTAAAAAGTATCCCCTGCTTATGCTTCTCCAGTTG
GCCCTCCATGTCCATAGGCTTCGCATCTGTGATTAGCCCACTGTGGGTCAAAAATATTT
GGGAAAA

Sequence 1918

GCCCGCGTCCGCATCCCTTGTATACCATCGTAGACTTCATACTGGAGAGAAACCTTACAA
ATGTGAAGAATGTGATGAAGCTTTCAGTTTCAAATCGAACCTTGAAAGACATAGGAGAAT
TCATACTGGAGAGAAACCTTACAAGTGAATGATTGTGGCAAGACCTTCAGTCAGACATC
ATCCCTTGTATACCATCGTAGACTTCATACTGGAGAGAAACCTTACAAATGTGAAGAATG
TGATGAAGCTTTCAGTTTCAAATCAAACCTTGAAAGACATAGGATAATTCATACTGGAGA

TABLE 1
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GAAACTTTACAAGTGTAAATGAATGTGGCAAGACCTTTAGTCGGAAGTC

Sequence 1919

NGACCNCGCGTCCGCGCTCCGCTGCCNNGGGCGGGAGGGAGGAATGGTTGCTTCACGCCC
CGGGGGAAGAGACNGGAAGCTCGGCTCTGGGTGCGGGCCCCGGGGTCTCCGCGTGGGGC
GCACCGTCCGACCCGCCCTCCCGGTGTGCAGCGCCCCGCACCGCCCCGCCTTGCTGGG
AGAAGCCCCGGCGGGACGCGCCGGGCTGGAGTGGGCGGTTATAGGCTTTGAGCTAGGCCGC
TTCCGGGAGGCGGAGCTCACACCCCATTTCTTT

Sequence 1920

GTCCGTTCTTGATTCTGGAAGTCCAGTGGGTCTGCAGCTGAAAAAGCCCTGGGTCCC
AGCAGCAGAGAGACAGGACAGAGGGGATGCTTGGGCGGGGAGGGACGGTAACCTGCAGAA
CAGATTCCATTTTATAGAACGAGTACACGTTTGCTAAACAGTCCTGCTTTCCAGACT
GGATTCCCACCACAGGGACAGTCGGAAGTCCAGGACTAGCTCCAGCGACATCTTCTCCG
AATTCAAGCCTTCTATCAATGTCAAAACAGCTATTTATAAGCCATTTTCATTGTACT
TGATAACAGCACGAGTCCCAAACTTTAGAAATAAAATAGGACATTGGCTTGATTGAAA
AGAGGGACTTTTAAAAATTGTTCTTTCGTGAGAAAGCCTTTTGATGACT

Sequence 1921

GCGTCCGAAAAAATAGCATTATACCTCTTCTGTCTCAACCGCCATGAAAATTCTGAA
CACTCCAAATTGAGTTGAATAATCCAAAACAAATTTATAAGTATAAAATAATTTTACTT
CTTATAGTAATAGTATACTTTAAAAAGCCTCAGGGTATATTATCTTCTAAACAGCTACAA
TTCAGTGCAGCTACATTAACCAACTATGTTCTCTAGTTGAGAACAAGTGGCCTATTTCA
CTGCTGTGTAGCCTCAGTGCCTAACATGGGTGCCAAATAAATATTCGTAGAATTACACTG
AATTGTAAAAACCATTCGTTTTTGTTCACAAATGCCCCAAATCTCAAAAGGCCCTGTATT
TATGTAATTCCTTGAAATTATTATTTATTTGATTTCTCAGTTATTGACTGGTGGGGTG
TGACTTAGTCATAAGTACTCAATATTATAAAACCTCAAATAATTGACTTGGATTTTACA
CAACATCCTTCCCTTTTCTACAAGTTAAATTTTTTACC

Sequence 1922

TTGGTATTCTTGGCTAATTTCTTAGCTACTTGAAGGTTAATTTGCAAGACTTTTAAACC
TTAGAAAAGTTTTAAGGTTGCAAAGTTATCAACACTGGGGCAGAGGGTGGAGAGGCCAAT
GCGGGTAGAAGGAGGCAGTTATGTTTATATTGAAGGTGAAATTTTCTTTCATTTAGAAT
GAAAAGCTCCCCAAATGTATCATTATAAACTAGTCAGCCTTGACTACAAAAATTGACC
TTTAAAGTTGCTTTGAGAAAAACAAATGCAATCGTTTCAGAAAGGGTCAACATCCTTTGGTG
CTAAATCTTGTGTATGTTTTGAGAATGGCTTTTCTGTATGTTATAGAATAATCACTAA
AGGAAAGGTAGTTGAATTTAAAGTCATGAAGCAAGACTCTTAAATTCAGTTATTTTAAAC
AAGAATTTAAACCCCAACATCCTTGGCAGGCTTTGAAGCACACAGAATTTTCTAGNATT
TCTTATTA

Sequence 1923

CNCCGCCGGAACAACAACAGAAAGCTGTGTTTGTCTTTTTCTCTCAAATATATCTCCCG
TATGAGATTTGAGTCCCCATGTTTTCACCAAGCAATCTGCTATGTCAGCCAACCCANCA
TCACTTTCTACAGGAGGTTATGATTTTTGCCATTTACTAGAGGAAGATGTTTTATGAAAT
CAAGTTGGGGTTTTGAATTCAGGTGCAGTCATCAGTTCTTTAGGGGCTGCAATGTTTTAAA
AAAAAATAAGTCATCAGATTTTAAAGAAAAAGTGATGATTTCTTATTGATTTTTGTAA
CAGAATATAGGCTCTTAACTGAAAATCCAGAACCAGAAACATAAATCTTGAGTTTCTTTT
CATGTACATAAAAAAGCAATAGCCGTTTTAGTATAGGATAGCCCTGAGCCCCAAAAAGTAAT
AGAAATTTTCTCTAGATATTTTAAACAGAGAGTGTATAGACTGACTCTAAGTTAATAAA
TGTGCAAAAATATCTTAAACCATNCCCTNCCCTTTATTTCAAC

Sequence 1924

CCNCAAAAAGGAACCAGAGGCCACTTGTATATATATGGTCTCTTCAGCATTTATTGGTGG
CAGAAGAGGAAGATTTCTGAAGAGTGCAGCTGCCTGAACCGAGCCCTGCCGAACAGCTGA
GAATTGCACTGCAACCATGAGTGAGAACAATAAGAATTCCTTGGAGAGCAGCCTACGGCA
ACTAAAATGCCATTTACCTGGAACCTTGATGGAGGGAGAAAACCTTGGATGATTTTGA
AAGACAAAGTATTTTACCGGACTGAGTTTCAGAATCGTGAATTCAAAGCCACAATGTGCA

TABLE 1

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ACCTACTGGCCTATCTAAAGCACCTCAAAGGGCAAACGAGGCAACCCTGGAATGCTTCG
TAAAGCTGAAGAGTTAATCCAGCAAGAGCATGCTGNCCAGGCAGAAATCAAGAANTCTGG
TCACCTGGGGAAACTAT

Sequence 1925

CCACGCGTCCGTCGCTCCAGCAGCATCCGCTTCAGCAAGGCCTGCCTGAAGAACGTCT
TCTCGGTCTACTCATCTTCATCTACCTGCTGCTCATGGCTGTGGCCGTCTTCCTGGTCT
ACCGGACCATCACAGACTTTCGTGAGAACTCAAGCACCTGTCTGTGTCTTACA
AGGAAGTGGATCGCTATGATGCCCCAGGTATTGCCTTGTACCCCGNTCAGGCCCAAGTTG
CTCAAGCTGTAAGCACCATTTACGAGGTCACTCCTCCTGACAAGCCCTGGCCAGCCGG
GTGACATGAATTGCACCACCCAGAGGATCAACTACACGGACCCCTTCTCCAATCAGACTG
TGAAATCTGCCCTGATTGTCCAGGGGGCCCCGGGAAGTAAAAAGCGGGAGCTGGTCTTNC
TCCAGTTCGCTGAACAAGAATAGTGAGGACTTTNAGCCGCCATTGAT

Sequence 1926

GCGTCCGGTAAGTATTTTGAATTCAACCCTCGAATTATTTTCTCATTTCAGCATAGT
GATAGGGGATGCAATGAGGCTTCATTATTTTTATGACCTGCCCTCATTTGCTCTGATG
TTCCCTAAATTCTGTAATCATATCATAACTTTTGTATGAATAGAGAGGAATGGGCTCAC
TGAAACCTGACACTAGAAATTGGTGGGTGATGCTCATAACTGCAAACACTTAGCTTATTG
AAGTGCCTCTATTTACATGTTCTTTAGTTATAATATGTATTTTCTAACAGAAATACACG
TCTGTAATTGGTATATATTATACTTTGTATGTGTCACAACAAAAGCTAAACAGAGGCTAA
AGTCTTTAGCAGAGAAGAATGAATTN

Sequence 1927

AACTGTTTGGGAAAATACGTTGAGGGAGAGAAGACCTTGGGCCAAGATGCTAAATGGGAA
TGCAAAAGCTTGAGCTGCTCTGCAAGAGAAAATAAGCANGACAGAGGGATTGCTCTGGA
CAGANATGGAAGAGCCNGGGAACAGAGAAGTGTGGGGAAGAGATAGGAACCAGCANGATG
GCAGGGGCAAAGGGCTCAAGGGTGAGGAANGCCNGTGGGACCCACAGANTATGGGGAGA
TAAAGGACATTGCTTTTGTCTTTGGTGGCACCGTAAGCTCCTTGACTGTCTNCAGCACCCA
GAATCTCATTAAAGCTTATTTATTGTACCTCCAACCGGCTTGTGTGCAATGGGGGTCTT
TTTGTGGAATAAANGAGCANACAGGTTTTCATGTGTACTGTCACCACGTGGGATGNGA
ACCAGATNGCATGGAANCAAGACGCTAAATGNAAGAGGGCCATAANGGNTGGGATTTCCC
AGGCNCCTTAAGAACAGCTTGTCTTTTTTTTTTCTTTTCCAAAAA

Sequence 1928

CCGCCGGTAAGTTAAAGACTTTAAGGACATTCAAAGTTTAAAATAGTGTCAAATTGCAA
AATTTGGCAATCTTCATATAAATTGGTTTCTTTCTAACTTTTCAAAAATAACATTAA
TGTCAATTATAGGAAAACATAGTTGGAATGTAATCATCAAAGATCATTTTTAAATGA
AATTTAATTAGCACATATTGAACATTTGACTTAATTGTTAAACCCAGTTTTGTTTTGT
TTTTAATCAGATTTTTGCACACTGATTAGTTTTGTGTTGTGGCTTTTGTGCTTTATT
ATTCAAGGTTTTTTTTTTTTCTTCCCCTATGGGGGAGATTGTCTTCCAATGTTTAACTA
CGTTTAAATAAATAAAATTGAATTTTATTGNTCATTTATATAAAATCTGATCCTTGATG
TAATTTCCAATACAGTTCCAATTTTATGGCTTTATAATTACAATGATTTTTCTTCTATA
ATAAAAACCAAAGTAAACATTTAAATGGGGAACTGATATTTTCATTTATATGAAGTAT
NAAGCCCTCTACTGGGGTCNTTATTGGNGAATCATNCTGCCTTCAAANTGGTTTCAAAAN
TGGGTAGAAAAAAAACCTTTTTTTTG

Sequence 1929

CCGCACACCCTAAAGAAAATAAGTATCCCAGTCGACATCAGTGACAGTGATATGATGCTG
AACATCATCAACAGCTCTATTACTACCAAAGCCATCAAGTCGGNGGTCATCTTTGGCTTG
CAACATTGCCCTGGATGCTNGTCAAGATGGTACAAGTTTGAGGAGAATGGTCGGAAAGAG
ATTGACATAAAAAAATATGCAAAGAGTGAAAAAGATACCTGGGAGGCAATCATTGGA
ANGACTTCCTGTGTCTTGCCTGGAGTCATGATTAACAAGGATGTGACCCATCCACGTATG
CGGCGCTATATCAAGAACCCTCGCATTGTGCTGCTAGGATTCTTCTGGAATACCAANG
AAAGGAGAAAGCCAGGACTGACATTTGAGATTACACGAGAGGAGGGACCTTACCCCGAA
TTCTCNCAGAAATGGAGNGAAGGAAGTACATCCCAGCAGCTNTGTGAGGGACCATTATCCC

TABLE 1

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AACCTGGAAAGCCCGATGTTGGTCANTCACTTGGAAAA

Sequence 1930

TTTTTTTTTACAACCAAAAAAGAAATCTTTAATAAAAAATTACTCATAAAAAATCCTA
ATAAATTTTAAAGAGCAGNGATATTCCTTATTACATTTATAAAGAACATTTGGNCCTTT
TACAAAAAGATCCCTTTTAATTNAAATACNTTCTTATTTACAGATTAAACATAAAATAT
CATNTACAGTTGCAAAGCATATTGCACATTACAGAGCAAAGCATTNNGTATTTCCGNAA
GTTTTCCAGAGTTCCCAACTCTATACTTTTTTTGTAAAAAGATTTACCTTGCTTATG
CAAAAATAAAATAAGAAATGCNANCTGNCGGTTTTGCTATTTAAAAACTANAANCCAAAA
TAAACCTNTTAAAAATATTATTCCTCTGCCTTGCANAAAAGGAAAGTGAAGAGGGGTNTT
ANAAATCAGNGGGGGTTNCCACCAGNGTCNCTTGATAATTTT

Sequence 1931

CGTCCGGGGAAACTTTATATGGTTGGGGATAAGAATTGAATGCAAATTAATGAACTAGAT
TTGCATTTATGGAGTTACCTCATCATGGAGTTACCTTGGTCTGTCCCACGTCAATTAATC
TTGNTTCCTTATTTTCATAGACCATCCTCTAGAACAGTGTTTTCACTGTGTATCATGA
TCCTATAATGCAGGGGTGTCCAAGCTTTTGTCTTCCCTTGGCTACACTGGTNGAAGAATT
GTCTTGGGCCACACATAAAATATACTAACACTAATGATAGCTGATAAGCTAAACAAACAA
AAAAATCACAAAAATCTCATAATGTTTTTTGAGATTGTGCTGTTTTTTAGTTGTGTT
TTCATGGAGAAATAC

Sequence 1932

CGTCCGGCGCGTTCTGTGCGTCCTAGTTCAGTACATGCGTGGAGGGTTTACGGCAGCGTG
TTCTGATTCTTTGCGGGACGGCGAGCGCATTTGTGCTTTGCCGCGCGCGCCTANGAGGC
CTTTGAGGCCGCGTAGTCGGTGTTTTGAAGTACTCTACAGCTTCTGGCAGGCCGTGC
GGCGCCCTGACCCGGCCTCACCATGTTGGTGCTGTTTGAACGTCTGTGGTTACGCCAT
CTTTAAGGTTCTAAATGAGAAGAACTTCAAGAGGTTGATAGTTTATGGAAAGAATTTGA
AACTCCAGAGAAAGCAAACAAATAGTAAAGCTAAACATTTTGAGAAATTCAGGATAC
AGCAGAAGCATTAGCAGCATTACAGCTCTGATGGAGGGCAAATCAATAAGCAGCTGAA
AAAAGTTCTGAAGAAAATAGTAAAGAAGCCCATGAACCGCTGGCAGTAGCTGATGCTAA
ACTAGGAGGGGTCATAAAGGAAA

Sequence 1933

AGGGAGCCGCCCGCGTCCGCCCGCGTCCGCGGACGCGTGGGCTAAAACCCATCAGGCA
AGATCACCACGCATTGANATATTTTCATATCAAGATAAAGTCGCACATTTTCCACAATAC
ATTGCTAAAATAAAGAGGAGAAAGGCTTAGGAAGTTTTTTGCAGAGAGTGCTGGTAAAG
AATTGAGCAAGTTTGCTATTGTATTGNAATGTTTCTCTCAGGTTTGNTCTTCTATCATG
GNNGGTATTCCATGAATAATTGAGATCAGCCCTATGTAAGGTAAGATCATAATATGGGGG
ACAAATGG

Sequence 1934

GCGGACGCGTGGGCTCCATCTGAGCTCTTGGGTGACCAGGGTGCAATTGTCAATGAGGGTA
ATATTTTGAAGACATCTTTATTATGAGCAGTAGGTCTCAACAGTGGGCTTAAATGTGC
AGTAAATCATGCTGTAAACAGATGTGTTGTATCCAGGTTTTGTGCCATGTCTAGAGCAC
AGGCTGAGTAGATTTAGCATAATTCTGAAGGACCCAGGATTTTCAAGATGATAAATGTG
CATTCGCTTCCACTTACAGTCACCAGCTGCATTAACCCCTAACAAGAATCAGCCTGTCCT
TTGTAGCTTTGGAGGCAGGCATGAACCTCTCCTAGATGGCATCTTCCAAGAGGGCTATTT
TTGTCTACATTGAAATCTGCTTAGTGTAGCCACCTGCTTCAATGATCCTA

Sequence 1935

TNGACCACGCGTCCGGGCGCCNTCTCCAGCAATCAAGTCTTGCTCCCTGGCCTGCCCTC
CGGCACCCTGGAGCCCCGCTTTCCACACAGCCTTGCTCCTCCCGGCCTGGCTTGCTGCCT
GCAGGCCTCTCAGGGTCCTTCACCGTCTCTCCAGTCTCGGATCCGGACCCGTGGATCTCA
GCCTCAGACCCTCCTCTGGCCCCGGCCTTGCCCTCGGGCACGGCCCCCTTCTCTTCAGC
CCTGGGGTGCTGCTCCCCGAGCCAGAATATTGTCTCCTTGGAGGTCCCCAAAGAAGGAG
TCTCCCAAGATCTCCCAACGTTGGAGGGGAAGTCCAAGCCCAGGGGGAACCTTGACATACC
ACCAGGTACATGCCCCCAGAGCCGAGAAGGATNCGGGGGGCAAGACCCCCANGCCGTAGG

TABLE 1
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NGTCTCCTCCCTTGGGTCTCCTGGGCCATCTCTGTGGGGAAGGGACAANACTCGCAACAA
NCCACATTCTAANGATGANGGCCCTTTNCCCT

Sequence 1936

CCNCGCGTCCGGAAAATATCCNAGGTTGTACGCAGCAGTGGAAGTTGCTCTCAAGGGAGT
GGTATTTTACACTATGCTCATGGCGACAGTCAGCAAACCTCACCTGTTGAAGCAAGGAAGA
AGCTCCATGGGCACTGGTCTCAGTGGTGGGAAACGTCCTAGTCAGGAAGAGGACACACAG
AGTATTGGTCCTAAAGNCCAGAGACAGAGCACTAATTAGGTAAATATTTTAGAGCTGTAT
TTCTTGCTTTAGAAGAGTATATAATTAACATAAATTAAGATAATTTCAAAAATGGAGCAA
ATCTCTATTTTCAAACCAGAAAATCTTGAGGCATTAATTTTAAAGCAATTTTACAAACT
CAGTTAATTTTGGTCAAGAGACATGCATCTGTAAGGAGAAATTTGTCACCAAGTTTT
ATATTCATCTGAACCAATGC

Sequence 1937

CCCCGCGTCCGCCCTTTNCTCCCTGAGGACTCCACAGAAGATGGTATATTATGGGAAAC
CTTCTTGTAACAACTATGAGAATTATATTGACATAGTGAAATATGTGTTTCAGCGCTT
ACAAGAGAGAGTCCCCTCTCATCGTCAACACTATGGGATGGGTTTCAGACCAGGGGCTCC
TGCTTCTCATTGATCTGATCCGATTGCTGTCTCCAGCCACGTGGTTTCAGTTCCGCTCTG
ACCACAGTAAATATATGCCAGACCTTACCCCGCAGTATGTAGATGACATGGATGGCTTGT
ACACAAAAGCAAGACCAAGATGAGAAATCGACGTTTCAGACTCGCAGCATTTCAGATG
CTTTGGAATTTGCTGATGAAGAAAAGAGAGTCCAGTTGAGTTCACTGGACATAAACTGA
TAGGTGTTTATACAAGACTTTGCATTGAGAATAACTCCAAGAAATAGGTAACATAACCTC
ATTTGGCTGAAGAATTATTTTCCCTCCGTCGAAAAGACCTGCCATTCTCA

Sequence 1938

GTCGACCCACGCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCTCTCGC
ACTCTGTTCTTCCGCCGCTCCGCCGTCGCGTTTCTCTGCCGGTCGCAATGGNAGAAGAGA
TCGCCGCGCTGGTCATTGACAATGGCTCC

Sequence 1939

ACCACGCGTCCGGGCGCCAGGCTAGGGCGGCCTGGCCACTGAGCCGGGGTGCAGTGGCAG
CGGGAGAGTACCTGGCGATGGCGATATGAGCGGTGCGGGGGTGGCGGCTGGGACGCGGCC
CCCCAGCTCGCCGACCCCGGGCTCTCGGCGCGGCGCCAGCGCCCCTCTGTGGGCGTCCA
TCCCTTGAGGCGCAGAGCCCGCAGCTCAGGCAGAGCGACCCGCAGAAACGGAACCTGGA
CCTGGAGAAAAGCCTGCAGTTCTGCAGCAGCAGCACTCGGAGATGCTGGCCAAGCTCCA
TGAGGAGATCGAGCATCTGAAGCGGGAAAACAAGGGTGAAGCCGCGCGGGGCCCTAGGCC
GGCCCTGCCTCCCCAGGCACACTCAACACTGCCGCTCCCGCAGCACAGAAACACAGCCAT
TCAACTCCAGCACACGCTGGGCTCAGGGGGAACACAGGACGATCTCCATTACAAGCTCA
TAATGAATCAGACATCACAGAAGAA

Sequence 1940

CGCGTCCGTGAAGGCCAGACCGAGAGGTGCCAGAAGAGAAACAACTCCATCCAGACACG
CGGGCGGAAAGGCTCCAGGGGTCCAGGGCCAGATGGCGCGCCTCTGCCCGACTCAGAAA
GAGAGAAACAAGAGCCGGAGCAGGGAGAGGTTGGGAAGAGGCCTNGACAGGCCCCANGCC
TTTGGAGGAGGCGGGTGATCTTCTGAAGATCCCCAGAAAGTTCCAGAAGCAGATGGTCA
GCCAGCTGTCCAGCCTGCAAAGGAGGACCTGGGGCCAGGAGACAGGGGCCTGCATCCTCG
GCCCCAGGCAGTGCTGTCTGAGCAGCANAACGGCTTGGCGGTGGGTGGAGGGGAAAAGG
CCAAGGGGGGACCGCCGCGCAGGCAACTCCGCCGNGACACAGGGCAGCCCGCANAGGACA
GCNACCACGTTGGGGAAGCCTTCCCTCCAGCGGAGAAGCCGGCTTCAGG

Sequence 1941

CCGCGTCCGCAGAAACATATGTGTAGTGTGCTGCAGCATAAGATGGAAGAACTTAAAGAA
GGCCTGCGGCAAAGAGATGAGCTTATTGAGAAACATGGCTTAGTTATAATCCCCGATGGC
ACTCCCAATGGTGATGTCAGTCATGAACCAAGTGCTGGAGCCATCACTGNTGTGTCTCAA
GGAAGCTGCTCAGGTCTTGAGTCAGCAGGAGAAGGGCCATTAGATGTAAGGCTACGAAA
ACTTGCTGGAGAGAAGGAAGAACTACTGTACAGATTAGAAAACCTGAAGCTTCAGTTAGA
GGAGGAACGACAGAAATGCTCCAGGAATGATGGCACAGTGGGTGACCTGGCAGGACTGCA

TABLE 1

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GAATGGCTCAGACTTGCAGTTCATCGAAATGCAGAGAGATGCCAATAGACAAATTAGCCG
AATACCAATTT

Sequence 1942

CCGCGTCCGCTCGCCTGCCCCGGTGCACCCAGTCCGCTACCCAGCCAGTCCGTCCGGT
CCTCACCGCCTGCCGGCCGCCACCCCCACCCGCAGCCATGGACGCCATCAAGAAGAA
GATGCAGATGCTGAAGCTGGACAAGGAGAACGCCATCGACCGGCCNAGNNAGGGCCGAA
TCCGACANGAAGCAANGCNTGAGGACCGCTTGCAAGCANGCTGGAGGAGGAGCAGCAGGC
CCTCCAGAAGAAGCTGAAGGGGACAGAGGATGAGGTGGAAAAGTATTCTGAATCCGTGAA
GGAGGCCCAGGAGAACTGGAGCAGGCCGAGAAGAAGGCCACTGATGCTGAGGCAGATGT
GGCCTCCCTTNACCGCCGCATTAGCTGGTTTGAGGAGGAGCTGGACCGGGCCCAAGGANC
GCCTGGCTACAAGNCCTGCANAACTTGTANGANGCCNNNNAANGCCGGCCTNATNATTN
GCCNNGAAGAGGGAATTNAAANGTTNTTNNAAAAACC

Sequence 1943

GTCCGCTTAGTTTCTGCATTATNAGTNAGCATAAATAATAAATCCAGAAAACGTGCTGTA
TTTGTTGTTGTTTCCCTCCATGGGCTTTCCCGCCATCTAATTTGATATAGACTTCATCTCC
CGGCTCCAAATGAAGAACCACACTGTTACTGGCATAGTCGTAATTCTGATCAGCATCTTG
GGCAATTGCACTAGCACGCACCTACGTGAAACAGACAAGAATTAGGATGCGTAAATGAGA
ATTCTCAAGTTTTCTTTTTGCCATTTCATGTAGCATCACAAAGCTGACTTGCTGCCATAGT
ACAGAATTTAGCATAGCAAAG

Sequence 1944

GCGTCCGGCTCGGGGCGGTGCGGGCTCCGGGCGGGGCGGGCGGCCATCTTGTGCCCGG
GGCCGGTGGGGAGGCCGGGGAGGGGGCCCCGGGGGGCGCAGGGGACTACGGGAACGGCCT
GGAGTCTGAGGAACTGGAGCCTGAGGAGCCCCCGGCAGCCAAGAGGAGGAGGAGGAGCCG
GGACTGGTTCGAGGGTGACCCGGGGGACGGCGCCATTGAGGACCCGGAGCTGGAAGCTATC
AAAGCTCGAGTCAGGGAGATGGAGGAAGAAGCTGAGAAGCTAAAGGAGCTACAGAACGAG
GTAGAGAAGCAGATGAATATGAGTCCACCTCCAGGCAATGCTGGCCCGGTGATCATGTCC
ATTGAGGAGAAGATGGAGGCTGATGCCCGTTCCATCTATGTTGGCAATGTGGACTATGGT
GCAACAGCAGAAGAGCTGGA

Sequence 1945

CCCACGCGTCCGGCAAACCGGGAAAGGAGAGGATCCCGGAGCCGGTGAGAATTCTCTGTT
TTTTCTCTACCATCCTTTCCAGGCCTTTTCCCTCACCTAATGAGTCGTAGAGACGAGGGCC
CAAAAAGTCTGTAAAGGTGGCTGGTGAAAGATTAAGTGNTCCAAGGGCCCTACATTCCNG
GANGNGGTTCCGGGATAAAAGAGAACTAGTCNTGGGAACAATGTAAGTGGGAACNTNAAGG
NANNGGNAAAGCGGCCNATAAAGGNNGNCGGAGGNCCCAATGGNANTAAAGCGGACCCTG
TGTAAGGTATAGAGTTGAGTCAAGTGGAGTCACTGCCTCTTGCCCTCTTGGTCAGCGTGA
TGGCCAGAGGCCTGGGGGCCCCCCCACTGGGTGGGCCGTGGGGACTGCTGANCTGGGCCN
ACTTGG

Sequence 1946

ACGCGTCCGGCCGGGAGTGGTGGTGGGCACCTGTAATCCAGTTACTCGGGAGGCTGAGG
CAAGAGAATCTCTTGAGCTCAGGAGGCAGAGGTTGCAGTGAGCTGAGATTGCGCCACTGC
ACTCCAGCCTGGGTGACAGAGGGAGACTCCGTCCAAAAAAGAAAAAGAGAAACAGCT
GTCACCTCCCGCAGGACCCAAATCCTCTCTGAGCACCGTCATCCACCACATGGCTNGG
CCTNGNTTCCAAGANCNAGTCNANCCTTTNNNGNCTTANTTNNAGGTNGANNCCGCNNNT
TTCNNCCCAAAGGAGACAGCCCTGCTCCTAGATGCCCTTGGCCTCCGCAGTGCAGCCCC
CAGGTGTCCTGACTGAAGCANAGGCCNTAGCCCCAT

Sequence 1947

NCGCGTCCGAAGTGGATGAAAATTGGTACCATGGGGAAGTCAATGGAATCCATGGCTTTT
TCCCCACCAACTTTGTGCAGATTATTAACCGTTACCTCAGCCCCACCTCAGTGCAAAG
CACTTTATGACTTTGAAGTGAAAGACAAGGAAGCAGACAAAGATTGCCTTCCATTTGCAA
AGGATGATGTTCTGACTGTGATCCGAAGAGTGGATGAAAACCTGGGCTGAAGGAATGCTGG
CAGACAAAATAGGAATATTTCCAATTTTCATATGTTGAGTTAACTCGGCTGCTAAGCAGC

TABLE 1
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TGATAGAATGGGATAAGCCTCCTGTGCCAGGAGTTGATGCTGGAGAATGTTCTCGGCAG
CAGCCCAGAGCAGCACTGCCCCAAAGCACTCCGACACCAAGAAGAACACCA

Sequence 1948

CGCGTCCGAGTATTTGAAGTGATGCTGGCTCAGACCGCTCCCACTATGCAAAATGTAACC
CATACATGGATTCTCCACAATCAATAGGTTTTGCTGAACTGCTGAGCCTTGGCAGTGGGC
GCCTTTGAGGCTTAGAAGTGCCNNAAGNNTCTNNCANNNGNTNNCATGCTTTNTTTTT
TGNCGCACTNTTANCAGTCANCAANAAAAATCCNGGGNGNTNNTNANCCCCNAAGGCNC
NNGNTNCCACNGTTCAGTGAACTTGCTTCAGAGGCAGAAAGAAGCAGGTTTCCAAGCAA
CAATCAGTGCTCCACACATGCATGCATATGCGCTAGAAGTTCTATTTGATCAGTTGCATG
AAGGAGCTAAAGCTCTTGATGTAGGATCTGGGAAGTGAATC

Sequence 1949

CCACGCGTCCGGAGAGAATGGGCCGCGCGCGCCCGCGGGGAAAGCCTGTCGGGAAC
CCGGGAGAGCCTGGCCCAGGGCCCGACGCCGAACACCGACGAACTCAGCTCTCTCGG
GTCTGACTCGGAGGCCAACGGCTTCGCCGAGCGCCGCATCGACAAGTTCGGCTTCATCGT
GGGCTCGCAGGGCGCCGAGGGCGCGCTGGAGGAAGTACCCCTGGAGGTGCTGAGGCAGAG
GGAGTCCAAGTGGCTGGACATGCTCAACAAGTGGGACAAATGGATGGCCAAGAAGCACAA
AAAGATTGCTGCGGTGCCAAAAGGGCATCCGCCTTCTCTCGGGGGCGTGCTTGCCA
GTACCTGTCAGGAGGCAAGGTGAAGTTACAGCAGAACCCTGGAAAGTTTGACGAGCTGGA
CATGTCCCTGGGGACCCCAAGTGNTTGGACGTGATGGAACCGTGACCTGCNCCGGCAGT
TNCCATTCATGAAGAGTTTTTGTGTCCGGGGGGG

Sequence 1950

NGCGTCCGGCTTTACAACGGGCAAATACTGGAAACCATCGGAGGCAAACAGCTCANAGTC
TTCGTATATCGTACAGCTGTCTGCATTGAAAATTCATGCATGGNGAAAGGGAGTAAGCAA
GGGAGAAACGGTGCGATTACATATACCGCGAGATCATCAAGCCAGCNNANAAATCCCTC
CATNGAAAAGTTAAAACAAGGATAAGCGCTTTAGCACCTTTCTCAGCCTNCTTGAAGCTT
GCANAAGTTGAAAAGAAGCTTCCTGACACAACNCTGGAGACTGGGACATTATTTGTGCCA
ACCAAATNGATGCTTTTAAAGGGGAATGACCTAGTTGAANNAAAAAAGGAAATTTCTTGA
TACNGGGACCAAAAAAATGGCTCNTTTCAAAAAACAATTCCATTTCTTTATTTNACCCC
TGGACCACCCCAAGGGAAGTTTTTTCAATTTGGGGAAAAAGNGGAATTTTTGG

Sequence 1951

CAATNCTTGAAACGGAAGGCGGAGGTTGTCGGGGGCTGAGATTGCACCACTGTGCTCCA
GCCTGGGCGACAGAGGGAGTCCCTTTCTCAAAAAATAATAATAAAATAAAGATGGCAG
TAGGAAGGTTTCAGCTTGAGATGCTGTCTTTCTCTGTTTTATGCATAAATACAACGA
AGACGGGAGAGGAGATGGAAGCAAAGATGATTAAAGTGAATAATTGTGGGAAACAATAG
AGGGATAGACTTTGCTTATAGGGGATGTGGACAGAGCAGAAAAATGGGAGGAATGGGGAG
GATTCAGTTAGAGAAGGAAGAAACCGGTCCAAGGGGCTGGGGCTTTAGGCCCTGGGGCCT
CCAGTGCCCGTATAAGGCTGTGGCAGAAGCCCTGCCATTTCCGTTCTTTCACTCCCTA
TNTTACCCTTACACCTCCCAAAAC

Sequence 1952

CCGCGTCCGGGTTTTTGGCCTTATTTTCTGGCTTTTCTTCTCCAACTTTGAGGCGT
GATTTTATTTCATTGAAGATCAATACATATTTTGTTCAAAATGTTTGAAACAAAAGACA
TAGATGGTAGACTTTTATTAACATATATGGATGTGGAAAGCACATATTAATGCAGT
CATCCCTTTTCAGGTGGGAAGAGAGCAAACAGTTGATTTTTTAATTCATCCTTAGTACA
CAGAGAATATCTTTNCTCAAGGAATATACCCTGGTTGGAGCTTTAAAAAAGAATGGTTT
TGGGAACCATTTTCAATTTTCCCAANAAGGTTGCTATTCTTGGGGTAANTGGGGNATACCN
GANTGNTTTTTCCNGGGGGGTTTTGGTGGTGGGGGTAAAATTGGGGNTTTTTTTTT

Sequence 1953

GCGCCGAGGGGTGTAATGCATTNGCAGCAAGAGCTATGAGAAATAACTTTAGACATTATT
TCATTGAACCTTCCCAACTGAAATTATTTTATGATGTTATAACATGGATAGTAACCTCAAG
TAGCAATAAGTTACACAGTTGTGCCATTTGTGCTTCTTTCTATAAAACCATCACTCACGT
TTTACAGCTCCTGGTATTATTGCCTGCACATTCTTGGTATCTTAGTATTATTGTTGTTGC

TABLE 1
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CAGTGAAAAAACTCAAAGAAGAAAGAATACACATGAAAACATTCAGCTCTCACAATCCA
AAAAGTTTGATGAAGGAGAAAAATCTTTGGGACAGAACAGTTTTTTTACAACAAACAATG
TTTGCAATCAGAATCAAGAAATAGCCTCGAGACATTCATCACTAAAGCAGTGATCGGGAA
GGCTCTGAGGGCTGTTTTTTTTTTGATGTTAACAGAAACCAATCTTAGCACCTTTTCAA
GGGTTTGAGTTT

Sequence 1954

TCGCCCCGCGTCCGGTTAAACTGCCTCTTTAGATGTGGATGCCTTAATGCTGTAACACA
TTTGAAAACATTGGCAATACTTAAGTTGCTGCCATGATTACAGATGGAATTATTGGCTAC
CAAAGAGACGCAATTGATGATGAGAAGCATGATTCTTGCTTCCATATAACCAAAGTTAAT
CTTAATTGCAATTTGACTCCGTTTCCTTGGTAGGGATAGACTTTCTTCAGATTCCAAGTG
CTCTCTTAAATGGCAAATTAAGTTAAAGAATACTACTGCTCCATTCCCCTCACTTATTCT
CCAGTTAATTGCTTGTGCTGAGTTCCATTTCAAGAAAGCAGTGGATGTTCCAGGTTTGATTCA
GTTTTCTGTGCACACTATTGCCAAATTTTTTTTAGCAAAGATTCTGCACTGGAACGTA
GACAGTTGGAACAGTACTACCTACTAGAGGGTATGGGGTTTCTTTCTCCCCGCTTTC
ACCTCTTCTTTTCCAATTC

Sequence 1955

CCNCGCGTCCGGCTCTGCCAGTCACCCGGTCTCCTCCGGCTTCCCTCCGGCCAAACAGCG
CGCTCAGGCTCGCCTCAGGCCCTCCAACGGAACAGGAGTCGAGGGGCAGTGAGGCCGGG
ATGCGTGCGAGCGCGGGGCGCGGCTGGCGCTGGGCCGTGGGGGCGGGGCGGCGTGCGTGC
CAGCGGCCGTGCGATTCTGTGAGGCCTGCTCTGCGCCGGCGGGGAAGCGCGGGCGACGCT
ACGCTGGACGTCTTACCTGCCGGAGGAGAGAAAGTGCCGTCAGCTGTAGGGG

Sequence 1956

GCGTCCGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGAC
GCGTGGGCGGACGCGTGGGCGGACGCGTGGGCGGACGCGTGGGAGAATGTGCTATACCCC
AGAAATTCATCGATCTGTCATGGGCCCAAAGGTTCCAGAATCCAGCAGATTACTCGGG
ATTTAGTGTTCAAATTAATTTCCAGACAGAGAGGAGAACGCAGTTCACAGTACAGAGC
CAGTTGTCCAGGAGAATGGGGACGAAGCTGGGGAGGGGAGAGAGGCTAAAGATTGTGACC
CCGGCTCTNCAAGGAGGTGTGACATCATCATCTCTGGCCGGAAGAAAAGTGTGAGG

Sequence 1957

CCACGCGTCCGCTGGAGGCACTGGACGAGATGCTGACGCACGACATCGCCAAGCTCATGC
CCCTGCTGCGGCAGGAGGAGCTGGAGAGCACCGAGGTGGGCGTGACAGGGGGGCGCTTTTG
AGGGCACCCACATGGGCCCGTTTGTGGAGCGGGGACCTGACGAGGCCATGGAGGACGGCG
AGGAGGGCTCGGACGACGAGGCCGAGTGGGTGGTGACCAAGGACAAGTCCAAATACGACG
AGATCTTCTACAACCTGGCGCCTGCCGACGGCAAGCTGAGCGGCTCCAAGGCCAAGACCT
GGATGGTGGGGACCAAGCTCCCCAACTCAGTGCTGGGGCGCATCTGGAAGCTCAGCGATG
TGGACCGCGACGGCATGCTGGATGATGAAGAGTTCGCGCTGGCCAGCCACCTCATCGAGG
CCAAGCTGGAAGGCCACGGGCTGCCCGCCAACCTGCCCGTNGCCTGGTGCCACCCTCCA
AGCGACGCCACAAGGGCTCCGNCGAGTGAGCCGGGGCCCCCTT

Sequence 1958

ACGCGTCCGCTGGCTAACATGGCCGAAAGGTCGTATTCTCCGGGGGAGGACGGAGGGCCC
GGAGAGGAGGGGGTGGAGTGCTGTTTCCAGTCAGGCGGCCGAGGGCAGCCCTCAAG
AACGGCCCTGACCGCCCGCGGGGTGAGGGGCCCTTTCTGGGCAGGACCCGCCCTTGGTC
CCGCAGAGCCTTGGTACTTGGACCTGAACCTTGCTCCGAGAGGGAGTCTCGCGGACGTC
AGCCAAGATTCCAGAATGACTACTATCTTGACTTACCCCTTTAAAATCTTCCCACTGCA
TCAAAATGGGCCCTCAGATTTTCCATAAGACCTCTGAGCTGTTCTCCAGCTACGAGCT
GCCCCAGCTGTCCAGACCAAAACGAAGAAGACGTTAGCCAAACCCAATATAAGGAATGTT
GTGGTGGTGGATGGTGTGCACTCCATTTTTGCTGTCTGGCACTTCATATAAAGACCTG
ATGCCACATGATT

Sequence 1959

CCACGCGTCCGGGGGACATGGTGGTGAGCAGGACAGAATTCCTGTCTCATGAGTCTTAC

TABLE 1
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ATTCTAGAAGGAAGGAGCAGATAAAATCTAAATAAGGTTATGAGATTGTGACGAAGCGTC
CGATTACACCTCAACAAGAAGGCAACTGACAAACAGCCTTATAGCAAGCTCCCAGGTGTC
TCTCTTCTGAAACCACTGAAAGGGGTAGATCCTAACTTAATCAACAACCTGGAAACATTC
TTTGAATTGGATTATCCCAAACCTTTATTTTCTTCGGTAGCACCAATGAAAAGA

Sequence 1960.

TCCGGTGCAGCCGGGCTAGCTTCTCCTGCATCTCCCGAACGTGCTCCAGCTGCTCAAAGG
AGCNTTCTTCCCTGGAACGAANCCCTGNCTGAACCCTNNNAAAGAGNCCTGGAACCCT
GGAACCCTGGAACCATGGNCCCAGCCNTNCCCCANGNACTGGGCCCTACAGCCCTATCCA
CACACCCGCTGAAACCAGCCCCCAGGACTCACCGAAGGCCNNGGGGGCGGCCAGAGTGGA
ATCATTGAGCAGGTTTCAGGAGTCCCCCTCCATCTNATAGACATCAGTCACCTCGGTGAG
GAAGGAGTGCTGCAGGGGCGTGCTGCAGAGCCGCTTCCACCTCCAGCCAGGACT

Sequence 1961

NGNCGCGGTTCTCGTCTCCTCCCGGCCGGCGGAGCGAGTGAGGCTGCAGCCCAGCTCGT
CTCGGCGCCCGCTCGCCGTNCGAAGCCCCCGCCCGCTTCCGCCGCTCGGAATGAG
CTCCCGGAAAGTGCTGGCCATTGAGGCCNAAAGCGGAGGCCGAAAAGAGAGAAACATCC
GAAAAAAATCAAGCAGAAGATTGAGCTGCTGATGTCAGTTAACTCTGAGAAGTCGTCT
CTTCAGAAAGGCCGGAGCCTCAACAGAAAGCTCCTTTAGTTCTCCTCCTCCACCGCCAC
CACCACCACCGCCACCTTTGCCAGACCCACACCCCCGGAGCC

Sequence 1962

CGCCACGCGTCCNNCCCGCGTCCGGGAGAAGATGGAAGCAGTGCCCGACGTAGAGCGCA
AGGAGGACAAGCCCGAGGGGCGAGTCACCTGTGAAGGCTGAGTGGCCCAGCGAAACCCCGG
TGCTGTGCCAGCAGTGTGGCGGCAAGCCTGGCGTCACCTTCACCAAGTGCCAAGGGCGAGG
TCTTCTCCGTAAGTGTGACCCCTCAAATCATTCTTTAAGAAAATTGAGTTCCAGC
CTCCAGAAGCCAAGAAGTTCTTCAGCACAGTGCGGAAGGAGATGGCGCTGCTGGCTACCT
CACTGCCTGAGGGCATCATGGTCAAGACTTTGAAGATAGAATGGACCTCTTCTCAGCTC
T

Sequence 1963

TCCGCGGNGCGTGCGGCCGCACTCATTTGCATTATCTTAAATCACAAATAATTACTTAA
TTNGCTGGAGTGTGTGCTTTGCACTTTTATACCAGAGTAAAATTTGTATTTAAACAAA
AAATAAGAATGCCATCACTAGGAGAAACACTCCTCACAGAAAACACACACACACACA
CACACACAATTTAAAACTGAGTAAATTTAAATGTATGAAAGGCNCCACAAATTGATTC
AACAAATAAATTTCAATTTCTAGCTACTTATGTCTGGCCTTATTTTGAGCGTTACAATT
TTATTGCCTTCATTTGCCTATTTAGACTGATGTAGTTTGATATGATGAAGT

Sequence 1964

CTNTAGGGAGNCGACCCACGCGTCCGCCCCGCGTCCGGTTAGTTCTACCTGGTGCCCATG
TTCTGATTGTGTGTGGGATTGCATGGTGTCTGATTGCATCTAGGTGGAGCGGATGGAAT
GTGCTGGGCCACTGTTGGGTGGAGAGCAGCACATTCTACAGAGGAGATGGAGCGTTATG
AGCATAGTATGTGGATAGGTATCTTCACCTGCCCGCCCTGAGTCAGCCTCCTTGACTTG
ATAGCTTGAAGAATCCTTTTCACTGAAATAGAGGATAATTAATTGACACATCTGAAATC
CCCAATCAATCAATCAAGAGAAAGGTAGAATAAACTCCTTAACCTACTGTTGCTTAC
ACCCCTGAAAGTCTGTTTTT

Sequence 1965

CGTCCGGCGCCCTCCAGCCCCGTCCGGGAGTCCCCGGCCCGCTGCGGTGCCGGGAGTACC
TCCAACCCCTGCNCCCCNNANGGAGGCCNAGGGGCTTAGCCACCAGGGCTCGGAAGTGG
GGGCCGAATCCGGTGCNNGNCNNNNNNNAGGNNAGCANAGCCGGAGTTGGGGAGACTGGT
TGCTGAAAAGCCAGGAGTCAAAATGACTGAGCGCTTTGACTGCCACCATTGCAACGAATC
TCTCTTTGGCAAGAAGTACATCCTGCGGGAGGAGAGCCCTACTGCGTGGTGTGCTTTGA
GACCCTGTTGCCAACACCTGCGAGGAGTGTGGGAAGCC

Sequence 1966

CCCACGCGTCCGGTGCACCTCAACAGAACGGCCCTTCAAATGTGAGAAATGTGAGGCAGCT
TTCGCCACGAAGGATCGGCTGCGGGCGCACACAGNACGACACGAGGAGAAAGTGCCATGT

TABLE 1

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CACGTGTGTGGCAAGATGCTGAGCTCGGCTTATATNNNNGACCACATGAAGGTGCACAGC
CAGGGTCCTCACCATGTCTGTGAGCTCTGCAACAAAGGCTTCACCACGGCAGCATACTG
CGCATCCACGCGGTGAAGGACCACGGGCTCCAGGCCCCGCGGGCTGACCGCATCCTGTGC
AAGCTGTGCAGCTGCAAGACCCCTGCCAGCTGGCCGGCCACATGCAGA

Sequence 1967

CGNCCCACGCGTCCGGCGGTGCCGCGGGGATGGCGGGAGCCGGAGCTGGAGCCGGAGCTC
GCGGCGGAGCGGGGGCGGGGTCNAGGCTCGAGCTCGCGATCCACCGCCCGCGCACCCGCG
CACATCCTCGCCACCCTCGGCCTGCGGCTCAGCCCTNNNNCCNNNNNANNNATGGCNGN
TCAGGGGGCCTGGGGTCTGGGGACAACGCCCCGACCACTGAGGCTCTTTTCGTGGCACTG
GGCGCGGGCGTGACGGCGCTCAGCCATCCCCTGCTCTACGTGAAGCTGCTCATCCAGGTG
GGTCATGAGCCGATGCCCCCACCCTTGGGACCAATGTGCTGGGGAGGAAGGTCCTCTAT
CTG

Sequence 1968

GCGTCCGGGCGTGTAACCAGCCGGAGCGGGCGGCGGAGCGGCAAGGACCGCCGTGGCGCC
TAGAGTAGCCGACCCGGGGGAGCGCGGGGCGACGCTGGCTGCAGGGACCCGGTGACAGC
GTGAGAGGTTGCGAGAGTACTAGGTTTTGACAAGCTTGCATCATGCGTGAGTATAAGCTA
GTCGTTCTTGGCTCAGGAGGCGTTGGAAAGTCTGCTTTGACTGTACAATTTGTTCAAGGA
ATTTTGTAGAAAAATACGATCCTACCGATAGAAGATTCTTATAGAAAGCAAGTTGAAGT
AGATGCACAACAGTGTATGCTTGAATCTTGGATACTGCAGGAACGGAGCAATTTACAGC
AATGAGGGGATTTATACATGAAAAATGGACAGGGATTTGCATTAGNTTATTTCAATTNAN
GCCANCCCAATTTTACGTTTAAAAAACCTGNNNNAAAAAAATTTTTTGGNTAAAAAN
CCNTNTTGTNTCCCCAAAANTTTTTTGGGGNAAAAAANNGCCCTCCNAAAAA

Sequence 1969

CCCACGCGTCCGCACGCCAGTGCCTCCCTTTACCTACTAATGAGGCAAACTTTGAGATT
GGGAATAACTTTGCCAGGGTTAAATGCAGGTAACAATGTCATATCCTCCTTGGTGGGC
ACATCTNANAATTTTAAATGAAGAATTCTTAAGACNGTCTTTCTAAANNACTATTTNGTAC
ATTATGCTTGAAGAANATNTGNGAATTGAGGGAAACA

Sequence 1970

GCGTCCGGTTTTCCAAGTGCAGCTTTTTAATGGTTAACCTTCATCTAATTTTTTTCTCC
CACTGGTTTATAGATCCTCTGACTTGTGTGTGTTATAGCTTTTGTTCGCGGGGTTGTG
GTGAGGAAGGGGTGATGGCATGCGGAGTTCTTTATCTTCAGTGAGAAANNGGCCCTGCCCG
CCTGAGAGCCAGCTTNCGCGTTGGAGGCACCGNGTTCAGAGAGCTGCTGAGCGCCACCCCT
CTACCCNGCTGACAGACAACACAGACCTGTGCCGAAGGCTAANTTGNGGCTTTTACGAC
CCTACCCACCCCTGTTTTAGGGGTT

Sequence 1971

CGTCCGGTGAGATTCTCCGTAATGGGCGGGGACAGAGTGCCCTGCAGGAGATTCTGGGCA
AGGTTATCCAGGATGTGCTAGAAGACAAAGTGCTCAGCGTCCACACAGACCCTGTCCACC
TCTATAAGAACTGGATCAACCAGACTGAGGCCAGACAGGGCAAGCGCAGCCATCTCCCA
TATGATGTACCCCGGAGCAGGCCTTGAGCCACCCCGAGGTCCAGAGACGACTGGACATC
GCCCTACGCAACCTCCTCGCCATGACTGATAAGTTCCTTTAGCCATCACCTCATCTGTG
GACCAAATTCGATATGGGATGCGATATGTGGCAAAGTCTGAAGGCAACTCTGGCAGAG
AAATTCCTGACGCCACAGACAGCGAGGTCTATAAGGGTGGTCGGGAACCTTCCTGTA
ACCGCTTCTGAACCACTTGTGGTGGCTCCTGACGCTTCACATTGTGGCCATGGCAANC
TGGTGGAGCCCTGGCTGCCCCCAGCGCCATGCCCTGGG

Sequence 1972

GAGGGGAGGGAAATTTATTTCTCTGCTTTTCTATTATACAAGTTGTTTACAGAACTGCA
AATTAATAAATTACACTGGCATTTCAGTCCTTAAATAAATTAAGTTCTCAACTTTT
TTTTTTTGCTAAACATTTTTTTAAGTATGAGTCCTTTGTTTAAAAAGAAANAGATTANA
ACAGAAATATTTTCTATAAATAATACATGTATTTGGTTTTAGTGCTCCCGCCC

Sequence 1973

TABLE 1

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GCCGACCCACGCGTCCGACATCCCCAGGCACATCCGGAAGGAGGAAGGTTCTTTTCAGTC
CTGCTCCTTCTGCANGNCCAAGAAATTCACCTACCATGATGGTCACACTCAACTGCCCTGA
ACTACAGCCACCTACCAAGAAGAAGAGAGTCACACGTGTGAAGCAGTGTGCTTGCATATC
CATCGATTTGGATTAAGCCAAATCCAGGTGCACCCAGCATGTCCTAGGAATGCAGCCNCA
GGAAGTCCCAGACCTAAAACAACCAGATTCTTACTTGGCTTAAACCTAGAGGCCAGAAGA
ACCCCCAGCTGCCTCCTGGCAGGAGCCTGCTTGTGCGTAGTTCTGTGCATGAGTGTGGA
TGGGTGCCTGTGGG

Sequence 1974

CGCGTCCGCCGAGAGAAGAGGTACGGTCAAGCCCGGAGCCAGGCCGAGCGGGAGCTGAC
CAGGCTTGACTCGGGTACAGAACGAGGCACCAGTCCCCTTGCGAACCGAAGGGCCTCGCA
GTGGATGGAGGAGGCCAGCCCTGAGGTCAACGCCAACCAGGCTAGCCTGGCACGGGGGCC
TACAGGGTGGGTAGGCGGGCGTGCCGCAGCCGTCCAGGGCCTTCCCTCAGGTCCCGGGCC
GAGGGGCCTACGCTGCGGCCCGGCAACAAGGCCCGACTCGGCCCTCGGGACCAGAGCCC
CACCCGATCGGAAGCGGATC

Sequence 1975

GGCCTCAGGGGGNAGNNATCCTGCAAAGACNNACATGAGCCCANAGGGGAAANAGAGNCA
CCTGNGAGTACNNGCCTTGGGNNTGACCTTGGCTCTCAGCACAAAGATATTTACAGCCTN
TGAGCTTGATATTCTAGAATTGNTACAGAGATAGCTCTGGAAGAAATAGACTAGAAGG
ATAAAGGGAAGGAATCATAGCTTATGAAGGTTTTACTCTGCATCAGACCGNTTTTCTAGN
NCTATGACTTAACTCCTATAGGCTGTAAGGTTCTCTGCGTGAACACTTCTTNTCTGGCC
TCTTTCTGCCCATTCCTNTTTAACTCAGTTGCTGAGTTTATTATNCCCTGTGCATCC
CTGGGCATTGNTCATTACATATGGAAACAATTCANGGAGGACCCTTTGCCTANTTTNCT
TTATCCTCTTGAATTNTGGATGGGAAAAATNTAANTNCTTTTGGCCGCTGCANTNGGG
GNAANTATTGGGCCTT

Sequence 1976

CGCCCCGCGTCCGCGTTGAACAGCTTTAAGAACAATGTGAATGAAATCTTAGCAACTTGG
TTAGTAATCTGAAAAGTCTATTAATGTATACTTGAAATTCTGTTGTATAAAATGCATT
TTCCCCTTTATTTTAACACTGTGTAAAAGAACATTATGCATGTGAGTGGTTTGAGAATTA
AATGGTTTAATACTCAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANGGGGNGNCCNTTANNNTNNTTNAAAA
AAAAACCCCCNNNCCNCCCCCTGNACCCGNAANNAAAAANNANNCNTNNGGGGGGGGA
ANCCTNNTTNTTGNCCCTTAANAGGGGNCCCCAAAAANCNATTNCCNCCCNANTTTCNNN
AAAAANNCTTTTTTCCCNNTTNNAAAGNGGGGGGNGGCCCANCCCCANAAGGGGTT
TTTNAAGGGGGGNAACCCCNNGGTCCCGNCCCCAAAAAAA

Sequence 1977

CGCCNCGCGTCCGGGCTGCCGTAACAATCGCCACAAACCTGGTGACTTAAATAACAAATA
TTTATTTTCTCGTAGCTCTGGAAGCCGGAAGTCCAAAACCAATAACTTGGCAGGGCTGTG
CTCCCTCTGGGAGATCTCGGGGAGCCTCCTTGCTACATGTTCCGCTTCTGGGGACTTCTG
GTGGTGTTCCTGGAGGGCCAAGGCCTCCGGGCGGCCCGTGCAATCGGTGAACACCTCC
AAAGAGCTCTGAGTCACAAAGCCTTGGGAACTTTATTTTATTCTTTCTAGGACATTATC
AGTAGTCCCGAGGAGACATCAATTACAAAACAAAAAAAAAAAAAAAAAAAA

Sequence 1978

CGTCCCAGACAGTCAGCCGCATCTTCTTTTGGCTCGCCAGCCGAGCCACATCGCTGAGGAC
ACCATGGGGGAAGGGTGAAGGGTGGGAGTCAACGGGATTTGGGCGGTATTTGGGCGGCC
TGGGTCACCAAGGGGCTGGCTTTTAACTTCTGGGTAAAAGGTGGGATATTGTTTGCCA
ATCAAATGACCCCTTCATTTGGACCCTCAAACCTACCATGGGTTTACAATGGTTCCNAAT
ATGAATTCACCCAATGGGCAAAATTCCTATGGGCACCCGTCAAAGGGCTTGAGAAACGG
GGAAAGCTTGGTCAATCAAATGGGAAAATTCCTNATCACCATCTTCCAGGAGCCGAGNA
TCCCTCAAATCAAAGTGGGGGCGATGCTGGGCGCCTTGAGGTACCGTCGTTGGGAAGT
CCACTTGGCCGTTCTTTACCCAACCATTGGGAAGAAAGGGCTGGGGGCCTCATTTTGCA
GGGGGGGGGAGCCAA

TABLE 1
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Sequence 1979

GAGTGTAGTTACTTCGGTCTTGCCTCACTGGGAGGCCACGTTGGTGACGATGCACACGAA
GCCCCGGTACTTGTCCAGGTTAACCATGTGCCCGTCCGATGTCCTTGGCGGAAAACTCGT
GCATGGAGCGCGCACAGCGCCAGTCGTCCNGGACGCGCACGGGTCTCTGGGACTTGGGAC
ATTCGNGGATCTCCGGTCGCAAGCTGCGGGGACAAGGCTTCTTCCGCCGCGCCGCGCCC
TCCTGCGCCTGCACGCTGGGGCCTTCCGCCGCGGAGGGGCTCGCGGCCGCTAGACTA

Sequence 1980

CGCGTCCGATCGGAAGTGGCGCTCGTGCACTCAACTTGTCCCGCTCATGGAACCCCTCT
TTAAAAAGACGCAGGGCACCTGTGAGCGCAGGAGCGAGCCTAAGGCCACCCAGCGGCAGC
GCCCCGTGCTCTGGGCACTCAGCGTGCTGGGCAGAGCAGGTGCGATGGCCCCAGTCCTAGC
AGCCCTCGCCCCATGTCCTGTGCCCTTACATGGCTCCCGGACTGTGCAGGGAGCCGATACG
TTTGCTGATAGCAATACTGGAACCAACCCGGGTGCGATGGCAGTGAGGAGACTGCCAGTG
CCTTTGGGGCTGTGCTTGCAATAAAGAAAGAATTTCTGGAAAGGCAGTCTGCAAAAGAG
GGAACCCGGTGACTCAGAAAGACAGGATGTTTTGGTAATTTACCCNAAATGTGCCATCC
ACCATAGTGCTTTTTCTCTTGGCCTTCGGCTTGTGTAATCTCACAATTATGGTATTTA
ATTCTCAAAGAAATATGTATCTGTTAGCCCGNTTGGTGACACTTATACAGATGATTAA

Sequence 1981

CNCGCGTCCGGTGAAGCGAGGACGTGGTGGGTCCTCTGGTGCGAAATTCGGATTTCCT
TGGGTCTTCCGGTAGGAGCTGTAATCAATTGTGCTGACAACACAGGAGCCAAAAACCTGT
ATATCATCTCCGTGAAGGGGATCAAGGGGACGGCTGAACAGACTTCCCGCTGCTGGTGTG
GGGTGACATGGTGATGGCCACAGTCAAGAAAGGCAAACCAGAGCTCAGAAAAAGGTACA
TCCAGCAGTGGTCATTGACAACGAAAGTCATACCGTAGAAAAGATGGCGTGTTTCTTTA
TTTTGAAGATAATGCANGAAGTCATAGGTGAACAATAAAGGCCGAGATGAAAAGGTTCTG
GCCATTACAGGACCCAGTAGCAAAGGGAGTGTGCAGACTTGTGGGCCCCCGGATTGCATC
CAATGCTGGCAAGCATTGCATGGATTCTCCAGTATATTTGTAAAAAAAAAAAAAAAAAN
NAAA

Sequence 1982

GCGTCCGTGGTAACGATTGGCCCTAAGAAGCCCCCTGCCTGACCCGTGAGCATTGTGGAAC
CCAAAGATGAGATACTGCCCACCACCCCATCTTCAGAACAGAAGGGTGGGGAAGCCAGA
GCCCGNCTGCCATGCCCCAGCCAGTCCCCACAGCATAACAGGGTCTCCTTGCAAGCTGT
ATTCTGGAGTCTGGATGTTGCTCTCTAAAGACCTTTAATAAAATTTGTACACTGGACTT
TAAAGTATTGNTCACAAGGGTTATGCAATTCNNNGNCANG

Sequence 1983

CCCCGCGTCCGTGACAATCGAGTAGTACTCCCGATTGAAGCCCCCATTCGTATAATAATT
ACATCACAAGGACGTCTTGGCACTTCATGAAGCCTGGTCCCCACATTAGGGNTTTAAAAA
AACCAGGNATGGCAATTTCCCCGGGACCGGTCTAAAACCAAACCCACTTTTCAACCGGC
TTACCACGGACCCGGGGGGGTATACTTACGGGTCAAATGGCTTCTGGAAATCTGGTGGGA
GGCAAACCAAGTTTTTCATGCCCATCGTCCTAAGAATTAATCCCCTAAAAATCTTTGA
AATAGGGCCCCGATTTTACCCTATAGCACCCCTCTACCCCTCTAGGAGCCAAAAANAAAA
AAAANAANAANNAAGTGCGGCCCGCTAGACTTAGGTCTAGGAGGAAAAAACCTTTCC
ACACCTTTCCCTGGAACCTGGAACATAAAAATGAATGCAAATTGTTTGGTTGTTAACT
TTGGNTTATTGGCAGGCTTATAAATGGGTTTACCAAAATAAAGGCCAATAGGCATCACC
AAAAATTTTCAACAAATAAAGGCATTTTTTTTTTAACTGGCATTTCTTAGTTTGGNG
GGGTTTTGGTCCCAA

Sequence 1984

CCGAAAGAATATCTGTGTGCTTAGGGAGGAAACTTTTTGATCTGCAGAAAAGCCAGAAGA
CATCTAGGACATCCATAAAAAATTCATCAGAGAGCATTTTACTACTGAGCTGCAAAGGGAA
AAACTTAAATGGGATATGAAAAGTGAAGAAAGTGATCATAGGGAGAAAAACCATTTTCAG
ATGACAAGAGCACCTCAAAGGCAGCAGCCTCAAGGAGCAGCCATGGCCCCAGACTTGTGCG
CACGGATGCAGAAAACCTAATGGAGGAGGCTGAGGTGAGAATGGGAAGAGTTTTTAAAAA
ATAAAAAGGGGAGCTAATATGTGAGGGACCAAAAAANNNNCANAAAAANAAAGTGCCG

TABLE 1
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GCCCGCTAGACTAGTCTAGAG

Sequence 1985

AAGCTTCCTGGTTCAAATGTGCCATTTCCCGGGTTGATGCTGCCACACTTTGTAGAGAGT
TTAGCAACACAAGTGTGCTTAAGTCAGGCGGTAGGGAAATCCCTCACTAAAAGCAGGAAG
AAAGGTTCCAATTCAAAAGGTGCCCAATGGATAGGAAGTCAAACAAGGAAAGGGTTAAAT
GGTTNGGAAAACCACAAATCAGGGTGGTGGGATTTGGGTGCTTACTTTTGAACAAAAA
GGGTCCCCCTGGTGGGTCTTTTGGTTCAAACAATTGGTACAAATTGGTAAGAACTTC
TTGTCCAAACCACTTAAATTTATTTTGGTCTTTGGAGGTTTTTACTTACAAAGGATGGA
NGACTATTGGGAATCCCCGGCATGCCCTGGAATTCCTAAAAGCCAAAGGGGGTCTTGTA
AGGCCAACGCTGCTTCTTCTGGAGGACTTTCCATTTCTTTTCTGGATTGGGCAACACCG
TGCAGGCTCATGGACAAATCTGGTAGGGATAACAAATTCAGTGGTGGGANTTTCCACTTC
TTTTTCAAGTCCTTTCATGTTAAAAGGAATTTAAGAACACCCACATACAA

Sequence 1986

GNGTCGACCACGCGTCCGGAGCAGCAGCCATGGCCCTACGCTACCCTATGGCCGTGGGCC
TCAACAAGGGCCACAAAGTGACCAAGAACGTGAGCAAGCCCAGGCACAGCCGACGCCGCG
GGCGTCTGACCAACACACCAAGTTCGTGCGGGACATGATTCTGGGAGGTGTGTGGCTTTG
CCCCGTACGAGCGCGCGCCATGGAGTTACTGAAGGTCTCCAAGGACAAACGGGCCCTCA
AATTTATCAAGAAAAGGGTGGGGACGCACATCCGCGCCAAGAGGAAGCGGGAGGAGCTGA
GCAACGTAAGTGGCCGCCATGAGGAAAGCTGCTGCCAAGAAAGACTGAGCCCCCTCCCTGC
CCTCTCCCTGAAATAAAGAACAGCTTGNCCGGATAAAAAATNAAAAAAAAAANAAN

Sequence 1987

GCCACGCGTCCGCAGGGAACGTGATTAGTGAAAGGAAGATAAACGTGGATGTTACTCCAA
AAGTTCGTTTAAATGAATGCTTAAAGAATTCAAATTTATCTGCCTCTCTTGTAATTTGGA
TCTCTTCTTAATGTACATAGTGCTAACATGAAGACCTTTTTCTGCACTATATGCAAACAG
GGTAACTAACTAAAACAAAGCCACTTTCAATCTTCAATCCTTGAAGGTATATCTAGGTTT
ATGACAGTAATTGTGTTTACATTTTATGGTGCCTAGTATTGACAAAATGTTATTTCCCTA
CATTAAACATGACTCCATAGACCTTTTCATTTGTGGGGTTTTTATTTCCCTATGATGTATA
CTGCCACTAACCTTNCAAAAATTAAGTATTGCAAAGTCAGGGAATCATCAGGGAACG
TTAGCTTGGCCAAAATACTTGGTCTGGTTTTTAAAAACCTGTCNAGGTCTACCAAACCT
GTTCAAGGTCTACCCAATTTAAGGGGCAAATTTGGGGGNAAAAAGGAAAAAAT

Sequence 1988

GGTGTGACCCGCGTCCGCGAGTCCCGCGTTCTCTCCTTGAATCCACTCGCCAGCCCCG
CGCCCTCTGCGCGCGCACCCCTGCACACCCGCCCTCTCCTGTGCCAGGCAAGGTGACCCC
ATGGCAAGGCGCAAGCCAGAAGGGTCCAGCTTCAACATGACCCACCTGTCCATGGCTATG
GCCTTTTCTTTCCCCCAGTTGCCAGTGGGCAACTCCACCCTCAGCTGGGCAACACCCAG
CACCAGACAGAGTTAGGAAAGGAACCTTGCTACTACCAGCACCATGCCCTACCAATATCCA
GCACTGACCCCGGAGCAGAAGAAGGGAAGCTGTCTGACATCGCTCACCAGCATCGTGGCAC
CTGGCAAGGGGCATCCTGGCTGCAGATGAGTCCACTGGGAGCATTGCCAAGCGGCTGCAG
TCCATTGGCACCGAGAACACCCGAGGAGAACCAGCGCTTCTACCGCCAGCTGCTGCTGAC
AGCTGACNACCCGGGTGAACCC

Sequence 1989

CGTCCGACAACATTTGGCATNAGGGTTGTATCTGTTGGTGGAGGACACAACGCCAAAAGG
AAATGGGATTTCTGGTTAGGCCTGCGGCTTGGCAGATGATTGTTATGGGAAAGACACTG
AGTCTGTTTAGGCAATTTCTTCTTTACTAATAAAGTGTTCTATTTTGAAGCAATG
CTGAGTTGTGGACATGTGTATAAACCGTAATGCTGTAAGTTAGGCCTCTCTTGTCTAGAA
TCTCAGCCTCTTCATACTCTCTCCCCCTTTTTTGGCATATTATTTCTTATCACTAACT
ATATATTTTACCTGTCTCACTTACTATCTGTCTCTCCTCTCAGAGTGTTACTCCAGGAGG
GCAGAGATAACTGTTTAGTCCAGGCTGTGCCCTTTCGGTGCTCAAAATAATGCCTGGGTGC
AAAATAAATATATCTTGAATGAAATAATGAAGTAATCTTTAAATGGTGCTCCGAGCATA
ATTTTCTATAGTAACACATAGTTTGCAATTAGTTGTCTCTTTCAGGGATAATGGAAATTG
GTCAACATAAGAAAA

TABLE 1

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Sequence 1990

NCCCCGCGTCCGAATTTGTTTTATGGATTGAATNATGTCTCCTCTAAAAAGATTATTGA
TGTTCTAACCTCCATGTCTCGTATTGTAACCTTATTTGGAATAGGGTTGTTGCAGAAGT
AATTAGTTACATTAAGATGAAGTCATGCTGGAGTAGGGTGAGCCCCTAATCTAAGAGGAC
TGGTGTCTTATAGGAAGAGGAAAAATGCCACATGAAGAGAGAGAGAGATGCCCAAGGAGG
TGTCATGCTGCAATGAGGGCAGAGATTGGAAGTGTGCAGCTGCATGCCAAGGAACACCAA
AGATTTTCAGCAAACACTGGAAGCTAGGAAAAAGCAAAGAATCCCTAAATATTTTCAGT
GGGAGCATAGCCCTGCCAACACCTTATTTTCAGATTTCTATCCTCCACAACATGAGGCAA
TAAGCTCTGCTGTTTTAAGCTCCTCAGTGTGAAGTATTTTTGTCATGGCAGCCTTAGGAA
ACTAACACAATTTACAAACAGATTAAGTTCACTAATCAAAGACAGCCCTTGCAATTGGG
GTTTTTTTTT

Sequence 1991

CCGCGTCCGGCGGGTGAGCCGCTGGCGCGCCGGGCGGGGGGATTGGCTGAGGGCGA
CGCGAGAGAGGGGAGACCCGGACTGAGGAGAGGACGGGGTGAGGGTCCCGGCCGGAGGC
TAGCCTGAGGAGACCGGGGGCGGAGGGGAGACCCGGGCCGCGAGGAAAGGATGGAGGA
GAGGAAGCCGCCGGGCGCCAGCGGGACCCCCGGGCTGAGGGGAGAGGCGCCCCAGGCCGG
GTGAAAAGTGGCCGAGGAGACCTGGGCTGGGCTGGCAAGTCCCGGACCGGGGAGGAGGGG
AGCAGCCCTCCGATGTGAGGGATCGCAGAGGAATGAGCTTCGTTCTGGATTAAAAAAA
AAAAAAAAAA

Sequence 1992

GTCACACGCGTCCGCAGCGCACGCCCCNTGCCCTGAGAACAGGAAAGGGCCCCGGAAGGG
CTGACTCACCGGGCCGACNCTCACACGAAAATGGGATGCACTTTATTTGCTGGTGCAAAG
GCAGGTGAGGGTGCTNCTGNGTGACCGNTGGCCCTNCTGCCTGGNGGCGCTGAAGGGAA
GGAGCCAGTGAGCCTGACCCCGGGAGGGGCCGTCCCCGTGTGCCGCGTTNGGCGGGGCC
CACGCGGCTCCCCANGCCCGGGTCTGGGGCCCCAGGCTTTCCCTGNCTNGNGGNCNN
CNTNCCNNGCTTTGGNTNCTTGNNTNGGNNTTTTTAATGCCAGNNNTCANNACATAANT
GCNTTNTGAAAGAGGTTCCAGCTATCACTTGAACCATATATATACATATATATTCTA
TCTACAAAGTGTTTATTTNCAAAGATNTTCAACGGTGAATTCAGTCCCCGGCCGCCCTT
NTGACCATCTGTNCCCNCTCCTTGTCGCCCGCCCCGGG

Sequence 1993

TCNCCNCGCGTCCTTGATATTTGAGAAAAATCATGTGAGTCATTTTTCTGTTTCTCTT
TTCTCTTAACGATTATCACTGTAATTCTGAATCTGAAAGGTAAACAATTAGTCAAAATA
TTATTGCCATCATTCTACCTGTGTTATGAACTACTTATTCATAGTTAATTCTCATTAA
ACTTACATTTCCATAAAGAAAACCAAGTATTAATAAAAGAGACTTTACTGGCTTAAGAG
GGCTGTGAAAGATTTTTGATAGTGAATCATGACCCTAAGGGAGAGATTTGTGTGATAAAA
GTATTGTATATAATAGATCAGCGATTTTTGTAAGGCAAACAGAATTTGTAAGTTGGCAGA
TCTTCCTAAGTTGCAAATGTAATGATGAGCTTGGTGGGAGAAGAATGAGTCGTTCTTGG
AATACCTATGTGCAGCCACTACCCATCTCAATGTCACCTTGTTTGCATTCTTGGATAGCT
TGTATATGTAGTAGTTTGATGAATAATTTAAAGAAAAACACCTAAAAATTTGAAAAATGAT
TGTAGGGATCAAAAAAGGCAGATGAAATTAC

Sequence 1994

CACGCGTCCGCTGACCTGACCCNTTCTGATCCNAGGCCNGGTGGTTGTCTTATTGCACC
ATACTCCTTGCTTCTGATGCTGGGCAATGAGGCAGATAGCACTGGGTGTGAGAATGATC
AAGGATCTGGACCCCAAAGAATAGACTGGATGGAAAGACAACTGCACAGGCAGATGTTT
GCCTCATAATAGTCGTAAGTGGAGTCCTGGAATTTGGACAAGTGTGTTGGGATATAGTC
AACTTATTCTTTGAGTAATGTGACTAAAGGAAAAAACTTTGATTAAAAAAAAAAAAAAA
AAAAAAGTGCGGCGGGCCGGGCGCGCCGGGTGGGCGGCGAGCGGAGCCGGCCGGAGCGG
GCCGGGCA

Sequence 1995

TCCGACNAAGGAACAAAAGCGAAACACACAAACCAGCCTCAACTTACACTTGGTTACTCA
AAAGAACAAGAGTCAATGGTACTTGTCTAGCGTTTTGGAAGAGGAAAACAGGAACCCAC

TABLE 1

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CAAACCAACCAATCAACCAAAACAAAGAAAAAATTCCACAATGAAAGAATGTATTTTGTCT
TTTTGCATTTTGGTGTATAAGCCATCAATATTCAGCAAAATGATTCCTTTCTTTAAAAAA
AAAAATGTGGAGGAAAGTAGAAATTTACCAAGGTTGTTGGCCCAGGGCGTTAAATTCAC
AGATTTTTTTAACGAGAAAAACACACAGAAGAAGCTACCTCAGGTGTTTTACCTCAGCA
CCTTGCTCTTGTTTCCCTTAGAGATTTTGTAAGCTGATAGTTGGAGCATTTTTTAT
TTTTTAATAAAAAATGAGTTGGAAAAAAATAAGATATCAACTGCCAGCCTGGAGGAAGG
TGACAGTCCAAGTGTGCAACAGCTGTTCTGAATTGTCTCCGCTAGCCAAGAACCTATAT
GGCCTTCTTTTGGACAAACCTTGAAAATGTTTATTTAAA

Sequence 1996

ACGCGTCCGAAGAGGTATATCCCATACCTTTTCCCCAAATTCCTTGTCATTAATTTTCC
AATTATGCTTCTTCCAAGTGCTGACCATCCAGCCAAACCATTGGCTACAGCCCATGAAT
CAGTATACAATGGCGCTACTGGTCATTTCTCTTCCATACAAAGTGCAACCTGGTATA
CTCTTCAAAGTTCTGCCACTGGGAAGATTGCTTCCACTGTCCTTCAGGGATAGGG
GCTATAGAGCTGCAGCTGTCCACTTTCAGGTGGTGCCTGCATATCGTGCATAACCATCTG
TGAACCAAGCCCTAGTCTTGTCTTCTCTGTCAACTGATCATAGGGAACCTCCCATGAGG
CCATCAGTGCAGGCTAAGGGAAAGAAGGCAAGGTGGCAGGAGTGGAGACCATGGACATTT
GAGCTACTTTCTTAGGTAACCTTACTTGTGTCTTCAGGACCTGCTCAAGCCAGATCACATA
TATACCACTTTAATT

Sequence 1997

CGCCNCGCGTCCGCTACACTTAAGGATGAAGAGAGGAAAAATCTACAGTGTAGGCACAGA
AATGCCTAGAAATGAGAGAAAAAAGAGGAGCGCATACTGCCTCAGAAACACCAAGA
GTAGTTTGGGAAGAAAGGAGTCAACAATAACAATATCAAAGGAATGAATGGCCAACAGT
GTAGCCTCAAGTAGGGTAGTGTGAGTAGTTGATAGACCAAAATCCTCAGCAAAATACTA
GCGAACAGATTCAACAGCATACTGAATGGATTATACACCATGGCCAAGTGGGATTATCC
CAGGAATACAAAGGTAGTTCAGCATTAGAAAATCAATCAATGCCAACACACCTCATTAAC
AGAAAAAGTAAAGAACTGCATACATGATCCCACAATTGATGCTGAAAAGGCATGACAAAA
TCCAACATGCTTTCATGATTTAAAAAAN

Sequence 1998

CCACGCGTCCGCACACTTGACCCCAGAGATCACGCCACTGTCAGCTGCCCTGGCTCAAAC
AATTGCCAGGGAATGGCACCTCCACCTGTCTCCATGGCTCCTGTGGCTGTATCTGTGGC
TCCTGTGGCCCTGTGGCTGTATCGATGGCCCAACCCTTGGCAGGAATCACAATGAGCCA
CACCACACTCCCATGGTGACTTACCCTATCGCTTCCAGAGCATGCGCATCACGGCCAT
GCCACACTGATGGGGCTAATGGACACTCCCTTGGTATAGCCTCGCAGGGCTCCCTTGAGAACT
GGGCCCTTGCCCACTCACCTAGCCTTCCCCATCCCTGTCTGAAGGGCTCCCTTGAGAACT
AGGACAAGAGACTACAAGGAGTATGTCCTGAGGAGGGGTTGGGATGGTGTGGTTTTCTCT
CACCTCCCTTTTATGAGGGTCCCTTGTCCATCTTCAAGCCTCACAGTGGGGGGCTT

Sequence 1999

NNGGCAGGAGAGGTTCAAATGCATTGCATCAACCTACTATAGAGGAGCTCAAGGTAATGG
GGCTGGGTGAAGTGGGGTAGGTGGGTCTCAGAGTGCACATGGCTTCTCATATGGAGCTGG
AAGGATTGGGGAATGAGCAGTAGTGTCTTCCCTGTCAACCTGGGGCTGTTTNTGCCACT
CTTCAGCCATCATCATTGTCTTCAACCTGAATGATGTGGCATCTCTGGAACATACCAAG
TAAGTGAGCATCCTGCAATATAATGGGAGGCTCCG

Sequence 2000

ACGCCTCCAGCCTGGGCAATAGAATGAATGAGACTCCATCTCAAAAATAAATAAATAAAT
AAAATACTGAGAAAAAGAATCTTTATTGTTTCTGTAAAATAAATTTTCTTTTAGCAAA
GCTCTTTTCCCTTTGACTCTCGCCGCCTAGATTTCCGTACCAGGACCACACATTTTAAA
GATGCTCCTCACCGCCGTACAGCTCCTGTACAGCCCAGAAAGCTCCGTGCGCACGAAGCT
CATCCAGCTCCCGTGGTCTACGTGATGCTCATGCAGCACTCGCTGTTTCTGCCGACTCT
ACTGACGTCTGACGGAGAGGAGAGCCCCGACAGCCAAGTAAAAGGTGACCCCTCACCCCA
GCCCTTCCATTCCGTATCCAGATTTTATCTCCTGATTTCTTA

Sequence 2001

TABLE 1
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CCCGCGTCCGCCGAGATGGCGCCCCTGCACTCCAGCCTGGGTGACAGAGTGAGACCTTGC
GTTTAAAAAAAAAAAAAAAAAGGAAAAGGAAAAAAAAAGTTCTACTGTGGGTAAAATGCTATC
ATGCTATCAAACAGCATCACATGCTACAGAGAAGTCTTGTGAAAGGATGTCAGTGTGGCA
AACTTCATTGTCTTTTAAGAAATTGCCACAGCTATCGTAATCTTCAACCACCACCACCCT
GATGAGTCAGTAGCCATCGTTAACGTTGGCGTAAGACCCTCCACCAGCAAAAAGATTGTT
AGCATTTTTTTAGCAGTGATGTATTTATCAATTATACATAATGCTATTGTACACTTCTTA
ATAGACTATGGTATAGTGTAACCATAATTTATGCACTGGGAAACCAACAAATTCATGAGA
TTCGCTTTATTGTANTTGCTCTGGAATTGAGCCTGCCCGTGTTCCTTGAGGTATACCTGT
GTATTAGGTATGTTCTTGTATATAAAACCCCATTTTTTAGGGTAGGAACTAANGCTTA
GAGTTTGAGCCAATTTTTCCCAT

Sequence 2002

CGTCCGCACTGTTCAAACCCTGTCTATGCTTTAAACTGATGCGAGATGATTTTGTTTTT
GCATAATCAATACTTAAGGGTGCAATCAACTGTTAGTAATTGTGCAGTANAGTAAAGCCC
TGTGGTGTATCAACTACTAGTTAAGAGTCTCAGTTGATTTCTGTAATGTTTGACCTAATA
ATAGCCCGTTTCGTCTCTGACCCAACAGAGGAAGCACAGATCAAATCACCTTGGAGTGGT
CACCAGGGGGACAGGGAGCCCCCACCATGTATCAATGGGTGATTTATGATGCCTTCTG
CCCTTTGGCGAGTGAATGGGTTCCCATAGGGGAAGTTNGGCCTCCCTCCGTGAGCTTTG
GAAAATGTTTTCTAATAGACACAGGGGAGGCCAGTTTTGTTTTNANAGCAATTATTTT
TTCCCAAATTCNTCTGTTTTGGNGGTNGGAACCTGNGGGGCCCCCGGGGTTTCTGGTTT
TCCTTTTTNCNGCNGGAAAATTCCTGGCTAAANANTCCCTTTTTTTTTTTNGGTTTNC
CANAAGCCCTTTTTATAAATGCANNATANTGAATNGCTTGGGGAACNNAAAATAAANTTT
TTTTTTCCANTCAAAAAANAAAAAAAAAAAAAAAAANGGCGGGGCCCTTANA
TTTTTTAAAAAAAAAAAAACCCCC

Sequence 2003

TTNCCATCCCTCAGGTGCTGAGAACCAAAGTGCCTAGAGAAGGGCAGGAGGAGGATGACG
ACGATGAGGAAGACGATGCTGACGAGGAGGCTCCCAAGCCCGACCATTTTGTTTCAGGACC
CTGCAGTGCTGAGAGAGAAGGCAGAAGCCAGGCGCATGGCCTTCTCGCCAAGAAAGGGT
ACCGGCATGACAGCTCAACAGCAGTGGCCGGCAGCCCCGAGGCCATGGGCAGAGCCGCG
AGACAAACCCAGGAACGCAGGAAGAAGGAAGCCAACAAGGCGACAAGAGCCAACCACAACC
GGAGAACCATGGCCGACCGCAAGAGGAGCAAAGGCATGATCCCATCCTGAGACCTGGTGC
AGGGCCAGTGGGGAGGCAAGC

Sequence 2004

TNCACATTTCTCCTAAGCACATGGGTCAATTCTCAAGGAGAGACCATATGTTAGGTCAC
AAACATTCAAAAAATTGAAATATTATCAAGCAACTACTCTGACCACAATGATGTAAACT
AGAAATCAAAACCAAGAGGAATTTAGAACTATAGAAGCACATGGAAATTAACAATCT
GTTTCTTAATGACCAGTGAGCCAATGAAAAATCAAGAAGAAATTTGCAAATGTTTGAA
AGAAAGTTATAATGGAAACACACTATACTAAACCTATAAAACAGCAAAAGCAGGACTAAG
AGGAAAATGTATAGCTATTAAGTGCCTACATTTTTAAAAAATGAAAAAATTTAGATAA
ATCACTTATCTATGAATTTGAAAAAAAAAAAAA

Sequence 2005

CGGGAAGCTTTNTTTAATTAAGCTGAAACCGAAGCTTTAATTTAATTTAATAGTTCC
ATGTGCCCATATTGGACAGTATAGCTCCAGGGTTTATTAACCACCATTCCTGGTGATAG
GATAGAGCCCAGCACAACTAATCTGGGCAACAAATCAAAGGGCACAAGTCGCATGTAGG
TTCCAAACTCAGTACATTTTAGAGAAAAGGAGTTTGATTATGTAGTAGAAGGAAGAACTG
CCTGGTGGGACTCATGATCTTCCTTTAAGAGCAAGGCTCAAAGACCTGGGGAGTTTTGAT
TTGATGCTATGATGTCTCCTGGGGCTCAGAATATTGAAATGAGGAGTGAATCTCTGAG
TGAAAAGAACTCAAGCTGCTTGTTGCATTGCGGAATGTCTTAAGAGGTAGAGAGGCGTC
TGTTAAGTGGCTTTGTATGAAGGTTTCAGAAGGTAAGATGAGCC

Sequence 2006

NCATTTAACTGTAATAGATATAGAACGTATCCTTCAATAACCAACAACAAATGCTTGTTT
CCAACAGGCTCTGATGGTTGTATATANGGAAACCTTGATACCAATACGTCCAGCTGACCC

TABLE 1

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AGAAAAAATCAGAGCTTAGTTAAATCACTGCTGCTCAAGGCTGTTGTATCTGGNNACGC
TCGAAATGGAGTTGCACTCACTGCCCTGGATCAGGATCACGTCGCAGTCCTAGGAAGTCC
ACTAGCAGCTTCTAAGGGTAACTGACATCCAATTCATTAAGAAGGCCTTTGTATGTTCC
TTCACGGTGTACCTTTTAGTCTTCCTTTNTTTTCATTTCAATTATTACCCAGACTAAT

Sequence 2007

GTCCGGCCCTGCACTAGGGACTGGGGAGGACATGGAGAATAATATATGTACCAGCACAGA
CAGACAGGCAGCTTCTGGAGCCAGACTGTCTGTGTGATCTTGGGTAAGTAATCTAGCCTA
ACCATAGAGATGATAACAATTGTACCTGCCACAGGCTCATGGGGCTATTGTGATGGTGAA
ATGTAAAGATGTAAAGTATAGAGAAAGGATGTAAACTGCCCCACATATAGTAAGGGCCA
TTTAAAGATGCCTGTTATTGTCCCTCTTCTTGAGAGCATATTAAGGGCTCAAATCTAGC
CAGAGTCTGGCGGGTACAGAGGTAAACAAATAATGGCAGGTTGGTTAAGTACTGGACACC
AGTGATGTCCAAGGTCTCTAGGATGCCCTGGAGAAATAATGAACCTCTCTAAGATTGTTT
GGAAGGGGATTTATAAAGGACATCTAGGCTGGGTTTTGAGTGAGGTATGGGGAGTTCGCT
GGTCAAGAATGTANGAATTACAAAAGCANAAAGTGCCTTATTNAAAAAAAAAAAAAA

Sequence 2008

NCCCCGCGTCCGGAAAATATTTAGAAAGCACCTTGAAGATTAGTATTTTTATGTAACCTT
CTGTTGGAGAGATGTCTTCAGGAGACTGAAGTAGAAGAGCGACTGTCAAAATGGAAAGTC
CCAGAGACATCCAATTTATGTAAATCAACATCACCTGAATTCAGAATCTCATCCAGATT
CAACAAAGACTTCTGAATGCCAACAAAGAAGAGGACTGAATTTACAGACTCTCACTCTAA
CAATATATGCTGTTCAATTTGAAAACAGAATAAAATTATTTTGGCAGAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Sequence 2009

AGAGTGTNCAGCTGGCTTTCCTCACTTGGGAAAAGGGTACTGCCAGTCTAAGCAGCCTC
CTCTGTACTCAGCCAGGACACCCAGCGCTGGGACCTGTTTGTGTCTGTTTGGCTTCCTT
GGGAACGGCACAGTCACTCACCTGCCATTTGCGGAAATGACCTGGTGCACCTTGACTGT
TAAGCAATGCGTTATTGCTGTAGTCAAGGTTAGTGCAAGCAAGGAAACATTCCAGTAAG
GTATTTGTTTCCATTTTCTGTCTGTGCTTCTGTGAGAACTTGCTAGGACTTTAGTGGCC
AATAAAAAAGAAATTCTAGCTTGATCGACCCACGCGTCCGGTAATGATTGATGAGGACAT
GACTGCCCCGAATTAGCATGGCTGATGTCAAGTCTCTTTCCAATGTCCTGGTGCATGTA
TGCACCTGCCTGGGTAGCCCCGAAGCTCTGCAGAAGAAGCC

Sequence 2010

GCGTCCGACAAACATAATGATCCGTGACAGTGACCTTAATATATAAATGTGTGTGTTGTG
ATTGTTCTACTGACCAGCCATTTCTGTCTCCCTCTTCTTATGCCTCCCTGTTAAATTAG
ACACAACAACATTGAAATCAGACCAATTAATAACCCTACAGTGGTCTCTGAGAGAGGCTA
ACAGCTAATCCTCTTGTGCTAAACAGCCAAATTGTGAATGCAAAGGAAAAGTTCTCAAAG
GAAATTAAGTGTACTACTCCAGTGAACACATGAATGATAAGAAAGTGAAACAGTCCGGGC
GTGGTGGGTACGCGCTGTAGTCCCAGCACTTTGGGAGGCTGAGGTGGGTGGATCACCTGA
GGTCAGGAGCTCAAGACCAGCCTGGCCAACATAGTGAAACCCTGTCTCTACTAAAAATAC
AAAAATTAGCTGAGTGTGGTGGTGCACACTTGTAATCCCAGACACTCGGGAAGCTAAGGC
CGAGAGAATCACTTGAACCCCAGAGGTGGACATTGCAAGTGAGCTGAGATTGTGCCACTT
GCACTTCAACCTGGGTAACAGAGAGAGACTCTGTCTCAAAAAAAAAAAAAAA

Sequence 2011

GTCTATTAACATACGGAGCTGAATCTGCCGCAGCTNGAAATGCTCAAGAACCAGCTGGAC
CAGGAAGTGGAGTTCTTGTCCACGTCCATTGCTCAGCTCAAAGTGGTACAGACCAAGTAT
GTGGAAGCCAAGGACTGTCTGAACGTGCTGAACAAGAGCAACGAGGGTATGGGGTAGGCG
GGTGAGGGTAACCTAAAGTGGCGAACCTGCTTCTCTCGTCCCACCTCCTAACCAGTTTT
TCTTACCTGAAACGAGAAAATCCATTACATATCGTATACCGCTTCATGAACCTTTGCAT
GTTGCCTGCCTAGAATTGAAAAGTACAGGACATTCCCTCTGCTCCTATTGCCCTGTTTCC
GTTCTTTTCACTGTCTGTGGGTGCTGTGCCCTGTTGGAACCTCTTTAACGTCTTACC
GTTGGAGCCGCTTACCTTCCCAGGTGTTGTCTTCATTGGCTTTCACAAGGGAAAA

Sequence 2012

NGGCAGCTGCTTTGTCTGGGAGGGGGCTTTGTGTCGAGTCTCCCTGAATGAGCAGGGCTG
 GCGACAGTTGTCAAAACACATGGTGCTTGGTCAGAGCCCCGTAGAAGCCCCCTTGCTCT
 CGCATGGCCTCCGCCTGCACCCGGGGCGTGGAATGTGCTCTTGTGTGTCCTGGCTGTCT
 GCTTGCTTCTACACTGGCCCTGCAGATGGAGGGGGTGGGGTACAGGGGTTCTATAAGA
 AGCAGACACTTGGGGTTTTTCCAGGCCCTGTTGCAGGAGGGTGCGTGGGCTGGTTTCCC
 TGAAGGCGCCTGGGCCGTGTTGGTGTTAACTGATCTGAGATCTTCTGTGGCCCTGATGTC
 TATGAGCATGCCCCAACTTGCANGGGGCTGAGTAGCCCGGGCACCACCAGGAGGCTTGCG
 TGCCCTGTGCTTGGGTGTACCCATGCCCTGTCAGCATCGTTGGTCTGTTAGGGGTCAGGG
 ACTTCGGCTTCTTGTTTAATACCGTNC

AAGTCGGACGCGTCTCAGTTCCTTAAAGCTGTTGGTCCAAGGCTACCCCTCAGTTCCTTGC
CACATGGGCTTCTCCAACAAGGCCATTTACATTAACAAAAGCCAATGAGAAAGAGAGTTAC
CGGGCATGGTCGCTCACACCTCTTAATCCCAGCACTTTGGGAGCCCGAGGCGGGTGGATC
ACTTGAGGTTAGGAGTTCGAGACCAGCCTGGCCAATATGCTGAAACCCCGTATCTACTAA
AAATACAAAAAATTAGCCTGGCATGGTGGTGGGCACCTGTAATCCCAGCTACTCAGGAA
GCTGAAGCAGGAGAATCACTTGAACTTGGGAGTCGTAGGTTGCAGTGAGCCAAGATCGAG
CCATTCCACTCCAGCCTGTGCAACAAGAGCGAGATTCATCTCANACAAAAAAAAGATNA
ANNAAAAAAAAANT

TCCTATTCTCTCTTGAGTTTATGCACATCTCTATAAATCATTAGTTTTCTATTTTATTA
CATAAAATTCCTTTAGAAAATGCAAATAGTGAACCTTTGTGAATGGATTTTTCCATACTCA
TCTACAATTCTCTCCATTTTAAATGACTACTTTTATTTTTTAAATTTAAAAAATCTACTTCA
GTATCATGAGTAGGCTTACATCAGTGATGGGTTCTTTTTGTAGTGAGACACATAAATCT
GATGTTAATGTTTGCTCTTAGAAGTCATACTCCATGGTCTTCAAGACCAAAAAATGAGG
TTTTGCTTTTGAATCAGGAAAAAAAAAATTAATGAACCTTTAAAAAANAANNAANA

[illegible]

TAAGTTGGGGGGTTGGNCCAAACTCATCAANNNTAATCATGGCTGGGATCCCCNGG
GTCCCGNGCCTCGGAAATTAAATTNCCTTTTTCCGGTTTTCTTGGGGTTTAAACCTT
TGNGGNGAAANTTTTTTTTGGGGGGGGGGGGGGG

CGCGTCCTGAGAGGTCAGGCCGGTCCTGGGGGCAGCAAGCCCGGCCACACTCCCCACCGC
GACCGGGGCTCTGGGCTCGCTTCTGCTTCAGTTTCCCCAAGCTCCNGATGAGACTCCGC
TACTACCACCACGTCGATAACGCAAACCTAGAGGGACTCAGGGTAAACTGAGGCACTCAA
ACTGCCGAGGAGCTCCGCCTCCCGAGAGACATTTAATCCGGGGGGATTTCAGGAAACTT
CTAAATTAAGGGTAGCGGCTGCTGCAGCTGAGGGGGGGCACACCGGTCCCTGCGCCCGG
CAGCTGCCGTGAGCTCACGCCCCGAAATAGCCCCAGGGGCCCCAGCCGCAGCTGCCACTG
GGTCCGGCTGTCACTCAGAGGAAGCACGGAGCCCCCAGCCCAAGGGTCCCTCCCCTTCG
CATCGCGGGGTTTTTCCAGCCGACCGTCGGCCACTTTTTCTCCGACNGCTGGCAGGGAA
GAGGGGGATTGGGGGCCGGGACCCCAAGGGAGGCGGTCCCCAATGGGTGGGCCAAGGG

ACGCGTCCGCACACCCCCAGGTGCCGCGCTGGCCCCCAGGCGTGGTGGCCTGCACGGA
GGGGACCACTTACGTCTGCTCCGTCTGCCAGCAAAGTTTGACCAAATCGAGCAGTTCAA
CGACCACATGAGGATGCATGTGTCTGACGGATAAGTAGTATCTTTCTCTCTTTCTTATGA
ACAAAAACAAACAACAAAAAACAACAAAAAAGCTATGGCACTAGAATTTAAG
AAATGTTTTGGTTTCATTTTACTTTCTGTTTTGTTTTGTTTCGTTTCATTTGTACT
ACATGAAGAACTGTTTTTGCTGCTGGTACATTACATTTCCGGAGGCTTGGGTGAATAA
TAGTTTTCCAGTCTCCCTCGGATGGTGGCCTTAAGGCCTGGTAGTGCTTCAAGAGGTCC
ACTGGTTGGATCTCTAGCTACTGGCCTCTAAACAACCCCTCTTTACAAAAAATCTT
TAAAAAAAAAAAAAAAAAAAA

TABLE 1
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Sequence 2017

CGCTCCGCAGCATCAAGAGTTATTTTCTGACTGTCAAGTTTCAACATTCAGGTCTGTCC
CCAACAGGCACCACACCGGGGTGGACTCCCTGTGTAACCTCTCGCCACTGGCTCGGAGAG
TAGACAGAGTTGCCATCTATGAGGAATTTCTGCGGATGACCCGGAATGGTACCCAGCTGC
AGAACTTCACCCCTGGACAGGAGCAGTGTCTTGTGGATGGGTATTCTCCCAACAGAAATG
AGCCCTTAACCTGGGAATTCTGACCTTCCCTTCTGGGCTGTCATCCTCATCGGCTTGGCAG
GACTCCTGGGACTCATCACATGCCTGATCTGCGGTGTCCTGGTGACCACCCCGCCCGGCG
GAAGAAGGAAGGAGAATACAACCGTCCAGCAACAGTGCCAGGCTACTACCAAGTCACAC
CTAGACCTGGAGGATCTGCAATGACTGGAACCTTGCCCGTGCCTGGGGTGCCNTTTCCTCA
ACCAGGGTNCNAAANAACCTTGGCTGGGGCAAGAAATNAAANCATATTTGGTCCGGAAAA
AAAAAAAAAAAAAAAAAGGGCCGGCCCTTNAACTAAGTCTAAANAAAAAAAAACTTTCAAAA
CCTTCCCTGGAACCTGAAACATAAAATGNATNGCAATGGTGGNGGTNAACCTGGGTTA
ATTTGGCANCTTTTANTTAAAANTTGGGGGGGGGGT

Sequence 2018

CGGATCAAGACCATCCTGGCTACAGTGAAACCCCGTTTCTACTAGAACTACAAAAATTA
GCCGGGCGTGGTGGCAGGCACCTATNGTCCAGCTACTCGGGAAGCTGAGGCAGGAGAAT
GGCGTGAACCTGGGAGGTGGAGGTGCAGTGAGCCAAGATGGCACCAGTGCCTCCAGCCT
GGGCGACAGAGGTAGACTCTGTCTCAGAAAAAAAAAAAAAAAAAATCAGTCACTGGAT
TTGGGCCACCCCTACCTNCATATGACCTCATGTTAACTTGATGACATCTGCAAAGACCC
ATTCCCAAAAAGGTCACCTTCACCAGTAAGTNGGGGGTTAGGACTTGAATATAGCTTTTT
GGTTGATGTAATTCAACCCACAGCACTGCCTTTTNCATTCCATGTTATGTTTTTGAGAT
TTTTGAGATTTGCCAAATATATGAAGCTATAAATTATCAGNGAAAATAAATAATTTCAA
ATNTAAGCTGTTGAAAACCTCTAAATTATTTTAAGCCTTTAAAAGAAATGGATTTTTGNA
GACAAGGNCCCGNNNGGCTTCAATGCCTNTAATCCCCANCACTTTGANANGGCTGATT
GGGNGNGNGGATTCCACCTTGAGGGTTTAGNGGNTTCAAAGACCAAGCCTGGNCNCTAN
CGGNGGTTGAAAACCCCTGGTNNTCTNACCCTTNAAAAAAA

Sequence 2019

GTTTTTTTATTTCTACTGTCAAATGATGTGCAAAACCTTTTACTGGTTGCATGGAAATCA
GCCAAGTTTTATAATCCTTAAATCTTAATGTTCCCTCAAAGCTTGGATTAATACATATGG
ATGTTACTCTTGCACCAAATTATCTTGATACATTCAAATTTGTCTGGTTAAAAATAG
GTGGTAGATTTAGGGCCAAGAATATTGCAAAATACATGAAGCTTCATGCACTTAAAGAA
GTATTTTTAGAATAAGAATTTGCATACTTACCTAGTGAACTTTTCTAGAATTATTTTC
ACTCTAAGTCATGTATGTTTCTCTTTGATTATTTGCATGTTATGTTTAATAAGCTACTAG
CAAAATAAAACGAGTTGACCCACGCCGTCCGGACACAAGAAAGGAATATAATTACATAC
TATTGCATTTTAAATAAATCTTTGAAATTTGCAGAATTAAGATTGTATTGTGATTTTC
GGTTAAATGATAATTGAATGTAATATTTAAGATGCAGCACCATATTTATAACCCAGCT
TAGGCATTTCTCATATTTAAGGGAAACCCCCACCTCCTTCTTTAANGGCGCTTCT
TGCTCTCTGAAATGCCCTGCTAAATGCCTTCTCTTAATTATTTGGAATAANGGTAGGTT
TTGGGGGAAAAATTTTAAAAAAAAAANGGGGGGGNAAAAAAAA

Sequence 2020

AATTTTNNATAATCTGAATTATCACAAAAGATAAGGATTTTTAAAGTTATTTGGAGGGA
GTGTACACATTGTTTATTTAATAGTGAGGGCTATTATACAAGCNGGTCNATGTAAATAA
TCCCTTTATATGTATGAGCATAGTTAATTTGGTAAACAACAGACAATTACATACTGTGAT
CATAAGGACTTTAGTATCAGTTACCATATAGCAGGTACTCTTTAGTCAGGATATACCTAT
ATAGGTGCTAAATTAATAATCAACCTTATATCTCAAATTTACTTCCTAGTAGAGTGTAAC
GCTGCCATAAATTGCAAGCCTAATTATGGGGTTGTCCATACTGCAGTCCCATCAGTACTCA
TACACCAAAGGGTCGGGCCTGTGAAGACTGGAAAAAGAATAAATATCTTTTGATTGAGA
TACTACAAGCAAAAATGACTTCTGGCTACCATTACTGCAAAGAACAAAACCTCAACTGAA
ACAATATGTAGCAATTAAGGTCTCATTATCTTCAAAACACAC

Sequence 2021

CCCGCGTCCCGGAACCTTACCCATAACCCTAATGATGCAAGTCATATGGGGGAACACTT

TABLE 1
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TGTAAATGGTCAGGATAAAAAACCAAATCTGGGTGCCAGATCCCAGCACTACTTTTTATTA
CTGGAGAAATGGGGGGGATAGAAAATTCTACTTTGAATTATTTAGTTTTTTTTAAAGAGT
GGGTTGTGTTTGTGCTTCTCCACCTTTCAAGCATTATAGAACATGCTGCCCCACATAC
AAAGTCAAGACCACTTACTTTTATGTGACACTAGTAGTTTGGGGTTAATGGTTTGNGTAA
AGAACAAGCTGCATATGAGTAAAGGTTACCCCAACCCNCAGTGAGGANGAAAGATGTTCA
CATACTGGGAACTGTCCTGNCAAATAAATNTGGCCCTATTGGGCTCTGTTTTAATTNGG
AAGNGGGCAAAGTAACCTCTTGCTTTGGGGCAACTATTTGGNNTCAAAATTANAAACCT
TTTAGACCCAAANTTNANNNNNNNNAAAAANNNGNNNNNNNANGGGGCCGNNCCNTTNGAC
CTTAGTTTTTANANAAAAAAAACCTNCCACACCTTCCCCTTGGAACCCTGAAACAATAA
AAAGGAAANGCCANTTGGGGGGGNGGGTAAACCTTGGTTTATTGGCACNCTTTATAAAN
GGNTTNCCAAAAAAGGCAATTGCTTCCCAAANTTTCCCAAANAAAAAAGGG
CCTTTTTTTTTT

Sequence 2022

ACCACGCGTCCGGTCTGCAGAGGCCCGGGCCTGGGCACAAAGGGAGAGAGGCCTCCATTG
TCCCGCAGGGGCCAAAATGCAGACCGTGCATCCCCGGTGACCTCGGGGACCGTNCTCTGA
TCAGCAGGATTTTCTTGGACTCTGGGGTCTTGTCTGCTCAGGCATCCCTGCCCTGCTC
TCCTTGAGGGCCCTCAACACTATCTTCCCTGGACACAAGTCTGGGGACAGCCGGGTGTTG
AGGACCCCAAAGGGGTGACTACCTGCTCCTGGGCCCCACAGAGTCCTTGTGCTCAGTGTA
GTGGCTGAGCTGGGGGATGCCCTGGAATTCGGAGCACACAGCACTGGCTTACTGTGGTAC
CTGTGCAGTGAAATTGGAGACAGAATCACCAGGATGGAACACAGGTCTTGAGGATCACG
GAAAACCTTTAGAGTTGTCTTGACACCACTTGATGTTGAGTGTCCGGGTGTTGTAGGA
TGGCCTGCACTCAGTCCAGGGGCAGG

Sequence 2023

CGCGTCCGCTTGACCCTGTATTTTGGGAGTCGAACGGAGAATGGAACTGAAAGTGAAAA
TCAGGAAAAGGTAATGGAAGAAGAAAGCACTGAAAAGAAAAAGAAGTTGAAAAAAGAA
ACGGTCACGAGTTAAACAGGTGCTTGACAGATTGCTAAGCAAGTGGACTTCTGGTTTGG
GGATGCAAATCTTCACAAGGATAGATTCTTCGAGAACAGATAGAAAATCTAGAGATTGG
ATATGTTGATATATCACTACTTGTGTCTTTTAAACAAAATGAAAAAATTGACTACTGATGG
GAAGTTAATTGCCAGAGCATTGAGAAGTTCAGCTGTTGTAGAGCTTGATTTGGAAGGCAC
CAGAATCCGGAGGAAAAAAC

Sequence 2024

CGCGTCCGCAGACTTTCCCTCTGCAATAAATCCTGTAACAAAATTGCACTCGCACCCCTT
ACGTTTATACAAATTTTTAAATAAATAAATACTAGAAAANGCAAGAGGAAACCAACCCA
AAATTATTAGAAGAAAAGAAATGATAAGATTGGGGCAGAAATTAATGAATTGATACTAA
AAATAGTACAAAAGATGGATGAAAGAAAAAGTTGTTTTTTTTTTTTTAAAGATAAGCAA
AATCAACAAACCTTTAGCCGGACTGTAAAAGAGAGAATATCCATATGAATAAAATCAGAG
ATGAAAAAGGAGTCATTACATCTGATAACACAGAAATTCAAAATATTTTAGAGACTATTA
TGAGCAACTATATGCAGTAAATTGGAACCTTAGAAGAAATGGATGAATTCCGAGACACA
TAAAAACATACCAAGATTGAACCATGAAGAAATCCAAAACCTTGAA

Sequence 2025

AATTATCCTGGTGTGGTGGCGTGTGCCTGTAATCCCAGCTACGCTGGAGGCTGAGGCATG
AGACTCGCTTGAATCCAGGAGGCAGAGGTTGCNTTAAGCTGAGACCACACCACTGCACTG
CAGCCTGGGTGACAGAGCAAGACTCCGTCTCAAAAAAAAATAAGCTATTGATGGGCTAT
ATATTGTTAAGCTATAGGGTGTGGTTACAGTGTCCAGTGTAGCATTGNTCGATTAATTTA
TAGCCTCTTGTGGCAACAGCAAGCAGNTTCCAGAGATGAATACACAGCTTGAGTAGGCAG
GGGGGAGTAGGACATGACGGCTGCCTCATCTTAACACCTTGGGCCTGATAATTTAAAGG
ACTCACAGTCCTCAGATAAACATGACTTTCTTTTCTCATGAGGAAACANANAAGGTGGCT
AAAGGGTATNTCTTCTCTCATGATCCCAAACCTATCAGGTTT

Sequence 2026

ACCNCGCGTCCGGGTGCTGTACCAGACCAGAGGCCAGCTCCATGTCCTCCGCGTCGGCAA
TGATACCCACTGCCAACCAACAAAAATTGGCTGCAACCATCCCCTACCAGGACCCGGCCC

CTACAGGGTGAAGTTCCTGGTGATGAATGACGAAGGACCCGTGGTGA AACCAAGTGGTCC
AGCGACACTCGCCTGCAGCAAGCCCAGGCACTTCGGGCTGTCCCCGGCCCCAGAGCCCG
GGCACC GTGGTCATCATCGCCATCCTGTCTATCCTCCTGGCCGTCTCCTCACGGTCCTC
CTGGCTGTGCTCATATACACCTGCTTCAACAGCTGCAGGAGCACTTCCCTATCAGGCCCA
GAGGAGGCAGGGAGTGTGAGAAGATACACCACGCACCTCGCGTTCAGCACTCCTGCCGAG
GGGGCTTCTGAGGGGTTCCAGAGGGGGCCACGTGTCCCTCCACCTCCTCCCTGGCCCAGG
CTGCAGAGCCTGAGCTGGGACACGCCCTGAAGCTTCTGGACCCTGAGAGAGATTGGTTCT

[illegible]

CCCCGCGTCCGAAAAAGACATATGTACAAGTCTATTTCTATAGCACTATTTGTAATACC
TAGCACTATTTGTANTATCTAAAGACTGTAACAACGCAGGTGCCACAAAGGGAAAATG
GTTTGACAACTTACGAACATCCTTTTAAAGGAGTACTAGACAGGTCAAAAAGGAATGAA
GAATGTATATATTACTATGGAGTGAATCTTCAGGGTATATGACTAAGTGAaaaaatGCAA
GGTGAAGTANTATGTAACATATGGTACAGTTTACTTAAGAGAGAAATACAGATGTATATA
CACATTACCTAAAGCAAATGAGGACCCTACTGGGCTGCCATCCCAGCTGGACTGCTGCT
TGGGAGCTCAGCATCAAGTACT

CGCCCCGCGTCCGGAGAGAGCTGTCTTTGCAGTTACTAGGTTTCATCAAACCTGTTTTTT
TCAGTATGGTAGGTTTAAAAATGGGGATACATTTTTGTTTTATTTCATTTTNNAAATAT
TTTCTTAGGTTAGTTGGCTACTTAAATTTCTTTTTCTGAAAACCTTGATTTATAGCCTT
TAAAAATTTCTATTGACTTGCCTGAACTATTTGTAAATTACAGAAATTAGCCCTTTGTCG
TATGTGTTGCAGGTCTTTTCAGTTTGCCAGTGGTCATTCATTTGGTTTATGGTACTT
TTGATAGACCGAATCTTTGACATTTTATTAGTGAGATTTATCCATCTTTTCTGTGTGG
CATCTTGGTATTATAGCATTAAATTTCTTTTTCT

CCACGCGTCCGGTTGGGACGGCACCAGGCGAGGTGTTGAGTTGGCTCGGCTCAAGGTTCT
TCGGGGTGTGAGCTGGCATGAGGACCTGTTGGAAGTGGGATCCAGGCCTGGNGCAGNCTC
CCAGCTGCCTCGATTTGTGCGTGTGAACACTCTCAAGACCTGCTCCGTTTATGTAGTTAT
TTCAAGAGACAAGGTTTCTCCTATCAGGGTCGGGCTTCCAGGCTGGATGGAGTGCCCTGG
CGCATCTCGGCTCACCGGACAACCTCTGCCTCCTGGGTTCAAGCGATTCTCCTGCTTCAGC
CTTCTGAGCAGCTGGGATTATGAAGGGGT

[illegible]

CGACCCGCGGTCCGGCGCTTCTACCCCTTCCGGCCCGTGTCTATCCGCCGCTCCACCTTC
CATNCGGCGCCGGCTTTCGGCGCGACGGTCGCCGCGTTCATCGTCGCGCGGCCCTTCGG

TABLE 1
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GCGCCCGAGCCCGCAATGTCGGGCCCCAACGGAGACCTGGGGATGCCGGTGGAGGCGGGA
GCGGAAGGCGAGGAGGACGGCTTCGGGGAAGCAGAATACGCTGCCATCAACTCCATGCTG
GACCAGATCAACTCCTGTCTGGACCACCTGGAGGAGAAGAATGACCACCTCCACGCCCCG
CTNCAGGAGCTGCTGGAGTCCAACCGGCAGACACGCCTGGAGTTCAGCAGCAGCTCGGG
GAGGCCCCCAGTGATGCCAGCCCCTAGGCTCCAAGAGCCCCCAACCGGGACCCAACCCTG
CCTCCCTGGGCTAGGCTCTGGCCTGGGCACTCACCCCTGGCTTAGACACCTTCTCAAGG
GCTGGCCTTCAGGGACCCCTGGTGGGTCTGCTGCCTGGGCCACCCTTCTGCCTGGGCCTN
CCCTTG

Sequence 2033

CGACCACGCGTCCGCTACCTCAAGGNCCTGGGCACCGAGCGGGCCTACAAATCCGCACTG
GACTACACCAACGAAGTCTGGGGATTTTCATTGACCTCCANAAGAAAGAGAAGGAGGCG
CATGCCTGGCTGCAAGCAGGGAAGATCTATTACATNTTGCAGCAGAGCGAGCTGGTGGAC
CTCTACATTCAAGGTGGCACAGAACGTGGCCCTGTACACAGGCNACCCCAACCTGGGTGCT
GGAGCTGTTTGAGGCGGCNTGNAGACATCTTCTTCGACGGGGCCTGNGAGCGGGAGAAA
CTGTGTCCTTCTACCGGGACCG

Sequence 2034

GGGGGGGAGGGGNGNAAAAAAAAAGNGANGGACAAANAAANAGAAAAANAAGANANAAGA
AAGNNANAAACANNNNAAAAANACNNNGGNAANCAGAGAAAAGAAAAGAAANNNGNANANA
GAANANNANGAGGGGNCAGGNAGAAGAAANNNGANAGAAGGGGNNAAAGGGGGNCGGG
AGAAAAGAAAGNAAAAAAAAAAAAAAAAANNNGAAAAAANGGGAAAAATNNGGGGAAANNNGA
AANNAAGAAAAAANANANCNGNGGNAAAAAAAAAAAGGANNNAAAAAAAAAANNNGGNA
ANANGGNNAAANGNANANANAAAAAGNGGGGGGGAGGGGGGAGGGNAAGGGNNGAAAAAN
NGAAAGAAAAAGAAAGAAANAAANGAANAANAGANGGAGANGNAAGGNAAAAANAANAA
AAAGNNNNNAANAANANGAAAGGGNAAGNAAAANGGGNNNNAAAAAGAAAAAAAAAAGNG
GNAAAAAAAAAAANNNGGAAAAAAAAAANNNGGNANNNNANNCAAAAAGAAAAAAAAA
AAAAGGGNNNNNAAGGGGAAAAAANAANAANAAAAAANGGGGAGGNGGCGNGGNAAAAA
AAAAANGNNAAAAAANNNNAANAAAAANANANANNNGNAANNNNANAAAAAN
AAAAAAGAAAGAAANAAGNGGGNNGNAAAAANACNNAANANNGANANGNANAAAAANNGG
AANAANAANAANNAAGNNANAANGAAAAAA

Sequence 2035

CCCCCGCGTCCGCGTTTTATGTGTGTATGTACAAAACAAATACCTTTTTGAAATTAC
ATAAGTGATACATGCTTATTGTGAAAGAGTTGGATAATACAATATACTGTAAAGAAGATG
AAAACCACTCATAAATCCAACCTGTAAATACTTTCTGTTCATATTTGGCATCTAATG
TATCCTTTATGTATATTTAAATATATATTTTATTCAAGTATAGGATCATGTACCTCCCTG
TTTTATAATTTCTTTTTAATTTTTCAGTGTATTGTGGACATCTTTTCTCATCAACAA
TACATCCCACAATGTTTATTTTGTGCCTCATTATACCATGGAATAGTGACATCCTAGTA
TGTTTAAGACATTCTTATTAATGAACAATTAGGCTACTTCCAATTTTAATTATAAAGG
ACATTTTGAAGGACTTCCTTGTACATATTATTCTATTGCTTTATCATCTTTTGGGATAA
TTTCATGTAGTATATTTCCAGTTATTTAAATGAGAAAGTACATGGTTTATAACAAATGGT
ATTTAACGTCCAAGTCACTGCTATCTAAAGGGGTAATTTTAAAGGTATAAAATAATTTGG
CTTATAAAAAATCGTGGGAAAAATATNCTAGAAATATTTAANGATTAACTTCTAAATTGT
AAATTGGCATATTTAATGATAGAATTCAAAAAAAAAAAAAAAAAAAAAA

Sequence 2036

CGCGTCCGGAAGAAATTGTGCACCCTCCCAAACATACAAAGTTTAAAGTTTGGATCTT
TTTCTCAGCAGGTATCAGTTGTAAATAATGAATTAGGGGCCAAAATGCAAAACGAAAAAT
GAAGCAGCTACATGTAGTTAGTAATTTCTAGTTTGAAGTGAATTGAATATTGTGGCTTC
ATATGTATATTTTATATTGTACTTTTTTCATTATTGATGGTTTGGACTTTAATAAGAGA
AATTCATAGTTTTAATATCCCAGAAGTGAGACAATTTGAACAGTGTATTCTAGAAAA
AATACACTAAGTGAACAGAAGTGAATGCTTATATATATTATGATAGCCTTAAACCTTTT
CCTCTAATGCCTTAACTGTCAAATAATTATAACCTTTTAAAGCATAGGACTATAGTCAGC
ATGCTAGACTGAGAGGTAACACTGATGCAATTAGAACAGGTAAGTGTGCTGTCAGTGTT

TABLE 1
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TAACACTATGTTTAGCTGTGTTTATGCTATAAAAGTGCAATATTAGACACTAGCTAGTAC
TGCTGCCTCATGTAAC TCCAAAGAAAACAGGATTTTCATTAAGTGCATTGAATGTGGCTAT
TTCTCTAAAGTTACTCATATTGNCCTTTGCTTGAATGCAATGCCCGTGCAGATTATGTGG
CTGCTATTTTTATTTCTGGGCATTACTTTNACACCNTAAANGGAGAAGCNAACATTTNC
TTCTTCACTGACTGGCAATGGNCCTTTACTGCAATAGGAAGAAAA

Sequence 2037

CCCCGCGTCCGGCTGGGCTTAAGGGATCTTTCCCAGGTAGCTGGGACTGCAGGCATATGC
CACTGTGCCAGCTGCTCCCTTAGTCTTGACTATGTATTTTTTTTTTTTGGTTGTTTTA
TTAGGATAGAGTCCTAAGAATGGCATTACTGGGTAAATAGGTATGAACATTAGATCTTTA
ATACATACAGTCGAATTACTTTTCATAAAGCCATATACCTTTTATATTCCCACCGATAC
TATCCCTATCACTAAGTATTAACCTATTTTCATCTTTGCCAATATGATCATCCAAAGTGA
GGCAGAGGTTGCAGTGAGCCAAGGTCACACCACTGTGCTCTAGCCTGGGTGCCAGAGTGA
GACTGTGTGTCAAAAGAAAAAAGGGGGGGGTGCCGGGTGCGGTGGCTCACGCCTGTT
ATTCCAGCGCTTTGGGAGGCCGAGGTGGGCGGATCACCTGAGTTTGGGAGTTTGAGACCA
GCCTGACCAACATGGAGAAACCCTGTCTCTACTAAAAATACAAAAT

Sequence 2038

GTCGACCCCGCGTCCCGGACGCGTGGGTCCGCCATGAACAAGTTTTCAAGTATCAGTTGA
TTTATGATATAGGCTTATCCATTTGGTTATAAAATCATATGTTTATTACATAATCATTGA
CAAATAGTTTTCTGTATAATAACTGGCAGAGTAGCTCTAAAACATATGCAAGGAAATAAAT
AAAGAAAAAAGTTACAATAAAGAGAGTAACCTCATATTTTAAACAGTTTTGTAAAAAATA
GAAAATATTTTATGTAGCTTATAGTACATATATTTTTTACAACAGAAGAATCGCATTCT
GATTTTCCATATGGATCATTTCCCTATGTTGCTAGACCAGTACACTGGCAACCTGGTCAT
ACAGCTTTTCTTGCAAGTTGAGGAAGGTCAAACCACAACCTTAAGTACTCCAGATG
ACAGTAACTGACTTGAAGATGGAAAAATATCAAAATAGAACTTTATATTGAAAATCACTG
CTTCCATAGATTGGCATTTTTAGCTATTACTATGACTTATATACTTATACATATAATTT
TGAAAAAACAACATAAAGATGTATAACATAGCCAAAACCTGCTTAAACCATCCATTTTGA
CCACTTGTCTTGCAGNTAGTTTTGACATTTTGTAGGTTAATGGATTCCAAATTGGTTTAA
GTGGGCCATCTCATTCTTCACTTTCTGNAANCCACTCCATAGATTGGCTTTTCTTCAG
GAAAATTAAGNTTCCTTTNCCTTTATTTGGATTGGANGGNCATTGGCCTACTGGAAAAANA
AATATGCCTTTTTAGGGTTAAAAA

Sequence 2039

GTCGACCNCGCATCCGACCACGCGTCCGCCAGACCTCACGTCAACCGGCTGCACCCCACT
TTCCAGCCTGCGCCCCAGATCTGCAGCCTTCGCCCTAGATACACCCGCTGGTGATGAG
GCGCTCCTCGCGTTCCCTCCGGGCTCCAGGTGTCCGTGAGCCTCCCTTCGCGCCTGGCCT
CCGGTCTCTGCCTTGCTCGTGCTTCTACCACCACCTTCCCCTCCCAACCCGGTGGATCC
TCTCGTCTCCCCAGTCTCCAGTGCACCGGCTTTCCCTCGTCTCTGCGCAGTCCATCTC
AGCTCATCTCTCCAATTCAATGCCATCATCTCTCCTCACCATCTCTCGGTGCCCTGGAAT
GTTTGCTGTCAAGATGTCCCCTGTGAAACCCACAAACGCTTGCGATTTGGCCTCCTTGTT
TTATTTTGTGTAGTCCTACAACGTCTTGTTACTACCCCTATTACAACACTTATAACTCA
NAANGAAANAGNNNNNNNNNN

Sequence 2040

CGTCCGCGGAGATCCGGCACACTGCGGACCGCTGGCGCGTGTCCCTGGATGTCAACCACT
TCGCCCCGGACGAGCTGACGGTCAAGACCAAGGATGGCGTGGTGGAGATCACCNCAAGC
ACGAGGAGCGGACGAGCATGGCTACATCTCCCGGTGCTTCACGCGGAAATACACGC
TGCCCCCGGTGTGGACCCCAACCAAGTTTCTCCTCCTGTCCTGAGGGCACACTGA
CCGTGGAGGCCCCCATGCCAAGCTAGCCACGCAGTCCAACGAGATCACCATCCAGTCA
CCTTCGAGTGCAGGGGCCAGCTTGGGGGCCAGAAAGCTGCAAAATCCGATGAGACTGCCG
CCAAGTAAAGCCCCTAGCTTGAGTCGACCCACGCGTCCGATTTAAATATTTGTCCATTG
TTTGTGATTAGGATGTAAGCTTTGTGGAATGTAATTAACCCTGCTTTACGAAGTCACCAT
ATTATAATAGGAAAAACACTGCCTAGGAGGCAAAGAGATCTGAATTCAGTTCTGATGCT
GCCACTGTGTAAGGAAGTAGTTTTATAAACCATGGGCAAATCATCTTGAGCTTTCTCATC

TABLE 1

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TGTAAGTTAGGGG

Sequence 2041

TCGACCNCGCGTCCGAAAAACCAAAACCTGANTGAGATCTTGGAACCGNTGTGCGCCGGC
CGNNCCTCTCCANGGGACCANCCANCCCCGCGCGGTGGCCGACTGNATAGGCGGGACTG
CGCTTCGAGGCTTAAGGACGNCAGATCGGAGGCATCGTGTGTTGTCTGTGCGGAGAAGCC
AAAANNGTGATTACGTTTATTTGCAAGACCGTTCATGTTGTTTTAGTTTATGTTTNGATATTT
TAAAACCCGATCCTTTGTTACCATGCCCTTAGGTACGAAAAAATAATTGTTTNGATATTT
GGCAGTCACCCAAAAATATCCAAAAAGCCATGAAACAGTANAGGTAAACAAGTANGAAGT
GAAANTAATNTTCGTCCTTTGTTTTCTTTCTGGAGGTGCTCAAAACACCCCTCTCAAACCA
TTTTTCTCAGCATAGAACCAAGTGTGGNCGGNTANCAGCTAATATTTACNAGGNGAGAA
ACGAACCCCTNGCGATATTTAGTCACTTTGTTNCCNGGGANACANAAAATNTTGAACAAA
CACATGAGAACTGTCACCGATCTCTGTATTGATNACCANGGATACCCGTGAATTTTATGT
AATATTAATCTNNGGNAGGCANGANTNTTNTAGGTATTTGCCTTTTCCAAGGTGCNCT
TTCCNTACCAAAGGAAAAANGGTTATTTTAAAACTTTTACCANAANAAGGGGATGNCTT
ATTTTTTGGTCCT

Sequence 2042

NGGACTTGGTTTTGAACGCGTTTTCCCAAAGTTTATGTGTTGGAACTTGACCCCAATG
CAGCAGTGTTGGAAGGTGCCTACTAGGTGGTGTCTGGGTGATGGGGGTATGACCCTCATG
GATGGATAAATGCCATGACTGAGGCGGTGGGCTCCTTATAAAAAGTATGAGTTTGGGTGAA
ACCTCGTCTCTACTAAAAATACAAAAATTAGCTGGGTGTGGTGGCACATACCTGTAATCC
CAGCTACTCGGGAGGCTGAGGCAGAATGGCTTGAACCAGGGAGTCGGAGGTTGCGGTGAG
CAGAGATCGCACTGCACTCCAGCCTGATGACGGAGCAAGACTCCGTCTCAAAAAAAA
AAAAAAAAAAAAAA

Sequence 2043

GAGAAGCCTGGGGGTCTGGCTGAAGTGGGCTGGGTGAAGGGGGCCCCCTGACCCCTTG
GGGTCCGGGCTGGGCTGGGTGAGGGGCGGTTTCCGACCCCAAGCCAGGTTCCAGGCAGG
ATGAGCTGGGGTTGGGGTGGCTAGGCCGTGGGCTTGGGAGCTGGGCAGTCTGGGCTGGG
CTGGGCTGGGCAGGGCGCCACATGGAAGCTGGAGGAGCAACGGGAGCGCTGGGCGTGGGG
TGCAATTGCCAGTGCCCTTCTGTTTCCAGGCAGCTCTGTGGCCATGGATATGTTCCAG
AAGGTAGAGAAGATCGGAGAGGGCACCTATGGGGTGGTGTACAAGGCCAAGAACAGGGAG
ACAGGGCAGCTGGTGGCCCTGAAGAAGATCAGACTGGATTTGGAGATGGAGGGGGGTCCC
AAGCACTGCCATCAGGGAGATCTCGCTGCTCAAGGAACTGAAGCACCCCAACA

Sequence 2044

ACACTCATCAATTAGGTTTTATTTTTATTTCTTCTCTACCCCAAGAAACAAGCCTGTT
AATTTTTTTCTTCTCTCTGCGACTGTGTGATGAATCCTTTCTTGCCTGATCAGGTT
GCGGATAGACTTGTAAGGGTGTGCTGCATACAGTGAAGCATTGTGACCGCCAATAAA
CTTCAATGGTTTCTACTGAAAAAAAAAAAAAAAAAAGGACGCGTCTACTTCCCACTG
GGTCCCTCCCACAACACATGGAATTCAAGATGAGATCTGAGTGGGGACACAGCCAAACC
AAATCAAAGGATATACAAAATAACCAGAAAAACAATGAACAAAATGACAGGAATAAGTTC
TCACCTATCAATAATACTTTGAATATGTGTTAAATTACCTACCTAAAAGATAGAGACAG
GCTTAATGGATAAAAAATGACTCAACAACCGTCTACAAGAACTCACTTCACTTGTAAG
ACACACACAGACTGAAAGTGAAGGGATTGAA

Sequence 2045

GCCNCGCGTCCGTGAGAATACACAAGGGGGGACGCTTCCAGTAGATGTGTTGGGGAAGGA
GGAGGGCAGAGGGGACAGGGGACAGGATTGAGCTTTGTGGTGGGTCTGAGGGTTCTCTAC
CAGGGGTAGCCAGGATCTGGGAAACAGATCAGCGACTCTAGTCTGAAGTGGCTGCCTGGT
TCGGGGGCTGCCTTCAGCAAGATTGAGGCAGGAGAGACGGAAATAGCCACCTTCCAGGCG
TGAGTCCTGGAGATAAAAAATGGATTTTAACTAGGACTGCCGGGAGCTGGCCCTCCGCGG
CTGCTCAGACTAGGGCTGTGTGTGCTGGCTCTCGCTGTTTCCGGTGTCTAACTGGCTTG
TTTCTCTTATGGCTTGGCTTATTCCGACCTGGGGTGGGGCCACATNCAACCACTGCC
CACTGGCTGTCCGTCTGGCCTGCCCCGCGGTTTCAACCACANTGGTGAACAANCCTTG

TABLE 1

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CAAGATNTACAACTCGCAACACCGGGTCAAGCAATCAGCTGCATTCCGGACCGGTGTGNA
AGACCGAAGGGG

Sequence 2046

CCCCCGAATATCTTATCCTTAACATTAAATTGAATTTTTTGCAAATGATCAAAAGGTCA
TTCCGAGTAAATTCTGTTGTATAGTGCAGATGATCAAGCTGAGTATTTGCCATGTTTTTA
TTTTAGAAAAGAGATGTTGCTATAACATAAGTAAATACGATTCTCGTATGTGGCAGATAA
ATTTACTTGTAATCTGCTCTAGAGTGAAATTATTTTTTACATATAAGCATTGTCATCATT
CTAAGGATTATTGAATAATGAATATAAAATGTTCTTGTGTATTTGTGTATGTGTATATAA
TTTTTGAAGTTTCTTTATCCTATTGACCCCTTCTCATAAACAGNAGCATATATATATTA
TATGTAGTAGAATTTATATAGGAACATTGTCTTTTCCCAGTAATGCTGATTCTAAACTA
GTTATGTCAATTTTCATGTAACATGACATTNAGAATAGTGGGGTGCTAAATATATTTAGAA
ATGATTTCCAAAATTGNTGTATTTCTAACATAGAANGATATTTGTCATTTTAAAAATAATG
TAAAGAAAAAATGC

Sequence 2047

GCACCCCTCCCTGTTGACACAGCCTGGATCCAGAGTTCAGCAGACCTTGAGACAATGAAA
ACAACTTAGTAATAATCATTTTTCAATCATTGCAGTAATTATTGATTTGGACAAAAATC
AATTGACGTCAAAACCTTAAAGTGACGTTTCTCTGCCTATGGAGTGGGTCATTCTTTTAT
TCCTTTAGTTTCATAATAAATTTTCTTTACTTAAAAAACTTATAGTTTGATGAAGAGT
GAGATATATACCTCATCTCAAAGAATCTTACACACACACTTATTAATTACAAAAGGAAA
ATCAGTAATTTTGCAGTGGAGACATATGGCCAACCTCCACCTTACCCAAGTGGCTGAAAGT
CACTGCACCAGTAATGG

Sequence 2048

AGAAAAGCCNAGCCAACAGCTCTTAAATCAGAAAAACAANGGGAGTCCTTCCTTGTCT
CNTCTGTGNTCNCNGGCCTTGTCTCTGAGACTNTCTGTGCCCNNAANCNNTNTNNTNGCT
NTNANCTGATTCTANTTTTGNTNCCCATGGAATCTGTCCTAAGACTGGGGNTTTTTGNCA
NATGACAGNCTTGCCNGNACNCAAATATCATAACAGCATTNNNNANCGANTTTTGCNGAT
CAAGTAANATANTTGCNTGACAATGACAGCTTTTAACTCTTCAAAGTCACCTAAAAGC
TATTATTGCAGGAGGATTTANGAAGTCACATTCATTNAACACCCAAGTGCTATGGGTGAA
NNATTCATGATAGCTTGGCCCAAGGTCATGAATTGAGGAGGGAATCTTGCTTTTCAA
AAANCAATGGAATGNTCCCNCCACTGAAAAAGGGNNATACGTTTTAATTTTTGGACCCCT
TCANAAAGGNTAANGAAAAAAACCCANGGTTCTTTCNAAAAAGTTAGNGAATAAGGGGGA
ACTTAANTTTTCATGGAANACAAGCCCATTNTTTNAAAAAAAAAAAAAAAAAAAA

Sequence 2049

CNTACGAACGTCTGAAACGTGGAGGAACCTTCAGTTCTGGGAACTCCCTGCCCCTTTCCC
GGAAAATTCATGAGTAATCCACCTGTTTAGCATATAATCAAGAAGTAACCATAGGCATAG
TATATCAAGCAGCCCCACACTGCTGCTTGGCCTATGGGGTAGCCACTTTTATTCCTTTACT
TTTTATTAACTTGCTTTCACCTTAAAAAAAAAAAAAAAAAAAA

Sequence 2050

CGCNTCCGAAATCCAATCCTAATGAAAGAGATTGATAAGTGTGACTACAAAAGGTTTAAA
ACTTTTTTCATAGCAAATTATCTCAGAACTAAATTAAGACAAGGGAGACCAGGTGCA
GTGGCTCACGCTGTAATCCAGCACTTTGGGAGGCCGAGGGAGGTGCATTGTTCTAGCCC
AGGAGTTCGAGACCAGCCTGGGCAACATGGTGAAGCCCTGTCTCTACCCAAAATACAAAA
ATTAGCCAGGCGTGGTGGCTTATGCCTGCAGTCCCAGCTACTTGGGAGGCTGAGGTAAGA
GGATGGCTTGAGCCCAGGAAATCAAGGGTGCAGTGAGCTGCNATTATGATTGTGCCACTG
CACTCTAGCCTGCATGTCCAAGTGAATCCTACATNAAAATAAAAAGTNCAAAAANANAAA
AAATGTGCCGGCCCGCTAGACTAGTNT

Sequence 2051

CCACGCCTCCGGAAATGCCTCTCTCCAGAGTCGGACCCCTCACCTCCTTCCTGGAAGTGCC
TTTGGCCCCAGAACCATGAGACAATCCCCACCCTGAGAAGCTNOGATCACTGGGAGGAGA
GAGAAAGCCTCCAGCTTTGGGATTCAAGGCTTCAGAAGTTTTAGCAGCCTTTGCTCATTG
GAGAGGTGGGGAGGATAAGTCTATAAGGAATCCTATTTCCCAGCTCTCCACAGAGAGG

TABLE 1
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ACAAAAGAAGTCTTCACACCGTTGTGGAACCTTCCTGCAACTTCTGGATGCAGACAAGCC
TCAGAGCAGACTGTTCTGGCTCCAGNGAATATCGGCTGCCAAGCTGTGAGCATCCAGGGA
TCCNCGTCTGCCTGGCTTTCCTGAAAGTCAGAAGGCGCCTTGGTCATACTGTGTGGGGTG
NGTNGGATNTTNAAGTTNTGNTCTCTTTCTTTTCTTTTNTTAACAGCTTGGCGGAGTA
GCCAACACCCCTGACAGCAATTGTGCNGCACTTGGCTTAATTCACACCCTATGAATAATT
TTTNATATTTCAACTTGGAAGGTGGTTAAGAACTTTT

Sequence 2052

GATGGACTGTGTCAATNCAGGACGGCCCTGCTGCATTGGCACCAAGGGCAGGTGTGAGATC
ACCTCCCGGGAGTACTGTGACTTCATGAGGGGCTACTTCCATGAGGAGGCCACGCTCTGC
TCTCAGGTAGGTCTGCAGAGTGTCCGTCGTTCCCTCCCCCAGCTACTGTGATGCTGATA
TGCTGCTCTGCGCAGGTGCACTGCATGGATGATGTGTGTGGGCTCCTGCCTTTTCTCAAC
CCCGAGGTGCCTGACCAGTTCTACCGCCTGTGGCTATCCCTCTTCTGCACGCCGGGATC
TTGCACTGCCTGGTGTCCATCTGCTTCCAGATGACTGTCTGCGGGACCTGGAGAAGCTG
GCAGGCTGGCACCGCATAGCCATCATCTACCTGCTGAGTGGTGTACCGGCAACCTGGCC
AGTGCCATCTTCTGCCATACCGAG

Sequence 2053

NCGCNTCCGGGCAGAGCCCCGGAGCCTGGCCAGCCCTTCCGGCAGCTCCAAAGCCACAG
GCAAGCCCCGAGGCTGGGATGGCCGGCCAGGAGGGAGGAGGACGACGTACCTCCCGAGG
AGAAGAGGCTGCGGCTGGGGCTGGAAGGGGGAAGCGCACAGCCCGAGGACTGCNAAGGAC
GGGGAGGACGCGCCGCGGCCAGGCAGGGAGGAGACCGGCACCCAGACAGGTGGCGACGGC
AGAGGAACACAGTGGCTCACGCCTGTAATCCAGCACTTTGGCAGGTGAGGCTGGCGGA
TCGCCTGGGGTCAGGAGTTCGAGACCAGGCTGGCCAACATGGCGAACTGTCTCTGCTAA
AAATACGGAAGTTGGCTGGGAGTGATGGCACGCACCTGTAATCCAGCTGCTTGGGAAGC
TGAGGCAGGAGAATCGTTTGAAGCGGGGAAAGCGAGGTTTGCAGTCAGCTTGAGATCACA
CCTGCACTTCANCCACCTGGGGTGACATGAGCGACACTTCTGTTTTCAAAAATAAACC
GAA

Sequence 2054

CTGTGTAGGACAGACTCTCTTTGACTCCCTAGGATTTACCCAGTGCCTAGCATGTTTCA
CAGCTTAGAGGAAAAACAACATTTGTTGACTGACTTTTGATCTCCATTTTTTGGTGAGATG
CAGTGGCTTACACCTGTAATCCAGCACTTTGGGAGGCTGAAGCGGGCGGATTACTTGAG
GCTAGGAATTCAGATCAGCCTGGACAACATGGCAAAAAATACCAAAAAATAAAAAAAT
AAATAAATAAAAAATTTAGCCAGACATGGTGGCAGGCACCTGTGGTCCCAGCTACTTGGG
AAGCCAAATCGCTTAAACCTATGAGGTGGGAGGTTGCAGTGAGCCAAGATTGCACCACTG
CACTCCAGCCTTGGTGACAGAGTGAGACCCTGCCTCAAAAAAAAAAAAAAAAAAAAAA

Sequence 2055

TCGACCCCGCGTCCGGGAATTTGGGGTGGAAATGTGATGAGATTAAATGTAGCTTTGGTA
TAACTTCATGTGATTTCAAAATATACTGAACGTCAACATGATTTGAATAAAGAAAATGT
ATTTTCTACTTGAACCACATAACACTGTTATTTAAACAGTTTTCTGCAGTCTAAAAAAA
AAAAAAAAAANNAACAANNAATN

Sequence 2056

CGTCCGGCAGAATGGCTCCCGCAAAGAAGGGTGGCGAGAAGAAAANGGGCCGTTCTGCCA
TCAACGAAGTGGTAACCCGAGANTNCAACATCAACATTCACAAGCGCATCCATGGAGTGG
GCTTCAAGAAGCCGTGCACCTCGGGCACTCAAAGAGATTGCGAAATTTGCCATGAAGGAG
ATGGGAATCCAGATGTGCGCATTGACACCNAGGCTCAACAAAGCTGTCTGGGCCAAAGG
AATAAAGGAATGTGCCATTCCCGAATTCGCTGTGCGGGTTGTCCAGANAACCGTAAATGA
GGGATGGAAGATTACCAAAATTAAGCTATATNCCTTTGGNTNCCCTATGTACCTGGNTA
CCACTTTNNAAAAANTTTACCAGACCAGGTCCAATGGNNGGATGGAGAACCTAAATCGNT
TGNTCGGCCGGANTCAAAATTAAGGTTNTTAAATTTGCCAAAAAAAAAAAAAAAAAAAA

Sequence 2057

CGCNTCCGGAGAGAGCCAGGGATGCCTTATGGTCAGAACAATTTATAGACAACAAAAG
GGAAGTGACCGTGAGAAATCAGAAGTGAGGTACAGAAACAGCTGGACTGATTACAGCTC

TABLE 1

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AACATTTGCCTTTTTTGAACAAATCTGAACACTCAGCAGTGTATGAGTGGTTGACCGTAT
NGGCTGCTGTGATTGGCCAGACCTCAGCTATTGTTACAGGCACATACTCTTAAGTCAGGT
TTTCAATCCTATCTGACTATAAAGTTAGGTTACAGTTTGTCTCATGGACTCAAATTTAG
AAGTATGGCGTCCTTCTCAGGCCATATTTAGTTCAAGTTTAACAAGTGCATATGGCTTCTG
ACAAAGGTGTGGCCCCCTTAGGACTCCAAAGACGCTGTCACCTACATGGTATTGAGGGAA
GACACAGAGGATCTGTGAGCAGCCTGCAGCCAAAGCTTTTGAGATCATATTGAGATTTTT
TTGTANTATANGAGGAGGGGTTCTGGCTC

Sequence 2058

CGGAAGCATCGACCTGCGAGCTCACAGAGCTGGGAGCAGAGCACCCACGCACACCCCGAA
TGGCTATGGAAGCTGCAGGGCGCCAGGGACACTGGGAGTCCCTGCTCTCATGGCAAAGCA
GGGACGGGGGACTTAAAAGCCACCAACAGGAAAATCGGGGAAAAAAGGGAAGATGGTGGT
AACAGTTGGACACTATTTCTTGGCAAAACCGTGGAAAAACACGTTCTACACCAGCAGGTG
GCAAATTGTGGCCGCCATCTGTGTTTGAAATAAAGTTTA

Sequence 2059

CCCCTACAATGAGCTGTCCCGCCTCAGTGGCCTGCGAACCCTCAACCTCCACAACAACCT
CATCTCCTCCGAAGCCTGCCTGACGAGGCCTTCGAGTCCCTCACCCAGCTGCAGCACCT
CTGCGNGGCTCACACAAGCTCTCAGTGGCCCTCAGTTACTGCCCCCGTCCCTCCGNGT
CGCGGATCTGGCTGNCAACCAAGT

Sequence 2060

ACCCACGCGTCCGCCGATTTTCCAGGTGCCGTCTGTCAACCCCTTTCTTTGACTNGGAAAG
GGAACCTCCCTGACCCCTTGCACTTNCCGAGTGAGGCAATGCCTCGCCCTGCTTCAGCTCG
CACATGGTGC GCGCACCCACTGACCTGCGCCCACTGTCTGGCACTCCGTAGTGAGATGAA
CCCGNTACCTCAGATGGAAATGCAGAAATCACCCATCTTCTGCGTCACTCAAGCTGGGAG
CTGTAGACCGGAGCTGTTCTATTGGCCATCTTGGCTCCTCCGCTCTATTTGCAGTTCT
TAAAGGGCTATTGTACTCTCTGGGATTGTACGAACTTGGACTGNATTGGAAGTGAACAG
AAAATCTTCCAGGCAAGTGCCA

Sequence 2061

CCCTTTCGAGCGGCCCGCCCGGGCAGGTAATTTTCAATCAGTGTACGAGGGAAAAAGCAT
GTATTGGGCCACCGGAAGACAAGCTAATAAATAGGCTGGAAGTAATATTCTACCAGCAGG
AACTCAACAGCTCCAGTTAAATGCTTTGATATAGNGGCTCCTTTCAGAGCCAAAACAAG
ATTTATTAATTTCTTCAAACCTGTTTATCTTTAAACAAATATAAGGTTTTAATTATAC
TGCTGAAGCAAAATGTAATGCCAAAGACTATGTTTGCAGTTTTGCTTTCCTCCCAATAA
ATATTAATGTATGTAATTCTAGAGGGTAAAAATGTAATAGGTTTGGACAATATTTGCAC
CCTTGTTTGTGTTATGAAAAAAATTTTTCCAAGGCGAGCTAGAGAGAAAGATGTTTGGCA
TGCCAAATTAACCTGCATGTTTGTAAAAAAACAAACACATGTTTTTGAAAAGAAACCAG
ATCTGAACGTGTATTTGTTGAAGTTTTGCAAAA

Sequence 2062

CCCTTTCGAGCGNCCGCCCGGGCAGGNACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TT
TTTTAAAAAAAANNAANNNNTNNNNTTTTTTNGGCCNTTNNTTNAANNNAANCNNNT
TTNTTTNGGGNTTNNNNAAAAAANNNAANNNAANCCCNCCNGNNNTTTTAGGGNAAA
AAAAANTTTTNCNGGGNTNAAAAAAATNNNTTTTGGNTNCCAAAANNNTNNGNNAAAAA
ANNAANNANCCNNNTTTTTNNNNNGGGGNCNCCCCTTTTTTTNCCNTGGNGGGGNG
GGGNAAAAAGGGGNTTTTTTTNGGANCCGAAAAAAAACGGGAANTTATCCCTTTTTTGN
GGGGCCNTAAACTTTTTTTTNNCCNCCNTTNTTTTTTAAAAANCCCCCNCCCTTTNTCC
CTGNTGGNNCCCTTTTGGCCCGGGGAAACCCNNTTTTTTTTTTTTTTTTTTTTT

Sequence 2063

AAGGGAAAAATGTCACGTANACTAGATCAGGGAACAAAAATCCTCTCCTTGTTGGAATATCC
NATGCAGNNNGNTGATACAACCTTANTATCTTATTGCCTAANAAAAAAATTTCTTATCATT
GTTTCANAAAAGCAAAATCATGGAATTTTTGTTGTCCAGGCAATAAAGGTCAATTNT
AATTTAGCTGCAATTTCAAGTGTCTCACTAGGTGGCATTAAATGTCCCCTGATGTCAT

TABLE 1
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TAAGCACCATCCAAAAAGTCTGCTTCATAATCTATTTTCAAGACTTGGTGATTCTGANAG
TTTTGGTTTTTNGACTTTGTNTCTCANGAAAAAANATTCCTACTTAAATTTTAAGTC
TATAATTCAATTTAAATATGNTGNGGCGTCTCATCCAGGATNGGATAGGTTGTCTTCTAT
TTTCCATTTTACCTATTTAC

Sequence 2064

CCCTTTGAGCGNNGGCCNNNCAGGTACAGACTTAGAAATTATCTAAAGATTTCATCTT
TTTACCTCATATTTCTTAGGAATTTAATGGTTATATGTTGTCTTTTTTCCCTATGTCTTT
TGGCTCAAGCAACATGTATATCAGTGTTGACTTTTTCTTTCTTAGATCTAGTTTAAAAAA
AAAACCACATAACAATTTCTTGAAGAAAGGAAGGGATTAAATAATTTTTTCCCTAACAC
TTTCTTGAAGGTGAGGGGCTTTATCTATGAAAAAGTAGTAAATAAGTTCTTTGTAACCTG
TGTGAAGCAGCAGCCAGCCTTAAAGTAGTCCATTCTTGCTAATGGTTAGAACAGTGAATA
CTAAGTGGAATTGTTTGGGCTGCTTTTAAAGTTTCTTAAATCAAATTAAGTGAATA
GAATTCAGAACTTGGTACATGTATTACTTGGTGGTATCGATAATCATTAAAAAGTAAAA
GACTCTGTCATGCATTTTTCCCATTTCTTTTTTTTCCCTGTCTCCGGGGCCAACCCAA
GTGGGTCTTCATTTT

Sequence 2065

CCCTTAGCGTGGTCGCGGCCGAGGTACNCGNGTCCAAGATGGCGGATGAAGCCACGCGA
CGTGTTGTGTCTGAGATCCCGGTGCTGAANACTAACGCCGACCCCGAGATCGTGAGTTG
TGGGTGCAGCGACTGAAGGAGGAATATCAGTCCCTTATCCGGTATGTGGAGAACAACAAG
AATGCTGACAACGATTGGTTCCGACTGGAGTCCAACAAGGAAGGAAGTCCGGTGGTTTGA
AAATAACATCTGGGCCTGCTGGAGAAAAAGAAAGATTACAACTTCGTTGCATATGACTA
CCGTAAAAAACAAGAAATACCTCAAAGCTCTTCGGAAGAAGGCTCTTGAAAAAATCCAGA
TGAATTCTACTACAAAATGACTCGNGTTAACTCCAGGATGGAGTACTTTAATTTTTTTT
TNTNATANTTNCCAGGAACATTTTCTAATTATGTTATATAAATGGGTATGTGATATGTG
NGCTATTTGTGTGCTAATGTCCTAAGTGAAGTTCTGCAGACCATCTGGGTCAAAGTGCAT
TTCGCATGATCCAAAANATGAAGAACCCTTGTTTGTACGGGAGACNAGGGAAAAAAA
A

Sequence 2066

CTTAGCGAGGTCACGNNCNANGAACGCGGGGNGNTCAGGAAGATNTCTGAAGAGTGCAGC
NGCCTGAACCGAGCCCTGCCNAACAGCTGACAATTGCACTGCAACCATGAGTGA

Sequence 2067

CATGCAGAANTCCTCGCTGGAGTTTCATAAGGCCAATGAGTGCCAGGAGCGCCCTGTTGA
GTGTAAGTTCTGCAAACTGGACATGCAGCTCANCAAGCTGGAGCTCCACGAGTCCACTG
TGGCAGCCGGACAGAGCTCTGCCAAGGCTGTGGCCAGTTCATCATGCACCGCATGCTCGC
CCAGCACAGAGATGTCTGTGCGGAGTGAACAGGCCCNCTCGGGAAAGGGGAAAGAATTTT
ANGCTCCTGAAAGGGAAATCTACTGTCATTATTGCAACCAAATGATTCCAGAAAATAAGT
ATTTCCACCATATGGGATTCCCAGACCATGANGCCAAAGTAATTCCTAATCCCCACACAC
AGGAATGGCATGGGACCTGNGATTTTGAGTTTTCAAGGGGCCGTAAGNTTTTNTTCTTC
ACACCTNCAAATTACCCGACCCCAAAAAAANAAAAA

Sequence 2068

CCCTTAGCGTGGTCGCGGCCGAGGTACTTNTCCGATTTCAAGAACTGATGAAATTAGAAA
AAACACCTACAGAACATTGGATAGCCTGGAGCAGACCATTAAACAGCTCGAAAATACAAT
CAGTGAAATGAGTCCCAAAGCCCTAGNTGATACCTNATGTTCTTCCAACAGAGATTCTGN
AGCAAGTTCATCCACATAGCCCAAGAGGCCCTCTCCCGACCCCTTGCTAGTTNCGGATGA
AGGTNCCACTGCCCTAGAGCCCCCTACGTCGATACCTTCAGCTTCACGTAAGGGCTCCAG
CGGGGCCCCACAGACGAGCAGGATGCCTGTCCCATGAGTGCCAAGAACAGACCCGGAAC
CCTGGACAAACCGGCAAGCAGTCCAACTGCAAGAACCNCGCCAATATCGNCAGGGCTA
ATGGAANTNCTAAGAAATCTTGGNNGGGGACTNTTAAAGCCTACTTTCCCTACTTACCT
GCTTCTAAAGATTCCAAGGCCNTTCTTCCAACTTTTGGG

Sequence 2069

CCCTTTGAGCGGCCGCCCGGGCAGGTTTCATGGATNNGAGCAGCTTCACCAACCCCTGCA

TABLE 1
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AAGTGA CTCTGAAGAAGACGACAAGCCCTGCTCCAGTCACACCCGGAAGCTGACTGGTCC
ACGCACAGCTGAAGCATGAGGAAACTCATCGCGGACTAATTTTCCTTAAAATTTANACT
TGCACAGTAAGGACTTCAACTGACCTTCCTNAGACTGAGAACTGTTTCCAGTATATACAT
CAAGTCACTGAGAGAACATCACCACCCTGAAGCCAGAGACTAACACTGCAGGACTCAGCA
GGACTATTTAAGAAACA ACTGAGGCATCAGACCAACTTTCCCCACAAGTCTCGGATCTT
TCCTGCCATGCTGATGCCATATATTCCAACGTGATCAACCTGGCTCCCCAGAAGGAGGAC
GACTTTGCTGTCTACACCAACATGCCCCCTTTTCATCACCCCAAGAGGACATTGCCAGAC
CAAGTGGGAATATGTCTTCCATTGTATTTCCAACCTGATGGGGAAAGCCTANATGAAGATG
CTCAAGAAGNGGGGGGTCAAGACCCTGACCCAGCAGTGAATCTTTGGCATTACCCTTGC
TTTAAATTTAATGTGGTGGNGNTTTAAAAAAAAAAAAA

Sequence 2070

CCCTTTGAGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTCNGCGGGG
NGNNCTACTTNANAATCTTTGGCNGGTTTNNCNGTTTTNGGTTTTCTNANCNCTTGGNCT
GGTNCATTTGGTTTNGAANAATCNGTTNCTTCNGATTTTTNANCAAANGGTTTTTNGNCA
AANGGTTTTNGAAANCTTTNNCCTTCTTCNGTNGAAGTNGTGGGTTTTTANANANAAAA
AATTGGGGTTNATCATTTTTTCTAGGCCNGAANGTTTNGNNCNTNCCTNTTTCANAATCT
ANATTAATAC

Sequence 2071

CCCTTTGAGCGGCCGCCCGGGCAGGTNCNGGTTANCAGACCCACAACACGAAGCTCCTG
CCTTTTAAGACTACAAAGAGGCAGCTCAAAATTAGACTGCACAGGTAAGCGAGGAAGTGC
AGTCTAAGCCTGGACTCTGCCTTCTGCCCTCCCCCGCGTACTCAAGCAATAAAAT

Sequence 2072

CCCTTTGAGCGGCCGCCCGGGCAGGTNCTNTTTTTTTTTTTNTTTNGCNGAGTGAGCTA
CTNTAGGATCTTNTGCTGGTTNTACAGTTTTTGGTTTTCTTAGCACTTTGTCTTGTTTAT
TNNGNTTNGAAGAATCTGNTTCTTCTGATTTTTTAACANAAGTTTTTGTACAAATGGTT
TTTGAAGCTTTTACCTTCTTCTGTTGAAGTTGTTGGTTTTTGAAGAGAAAAATTNGT
GTTTATCATTTTTTCTAGGTCTGAAAGTTTTGCGCATTCTCTTTCAGAAATCTAGATTAA
TAACTAAAAATCTTAAACTTGNTTTTTGAAGAATTTTACTCTTCTGACAAATCTTCTGA
TAAACTTTTCTCAGATTTTAAAGTTAGCTAAAAACAAAANTTCTTGTTTNGNTTNTTAA
TNTCGAATGCTNACTCTGTATCTTTCAAGTTTTNCAATTTTTTCGATGTCTTAGCATCAA
AACAGATTTTAAACGTCTTCAAATTACTTTTAAATCTGTTCTGAGCTAAAAACNGTC

Sequence 2073

CCCTTAGCGTGGTCNCGGCCGAGGTACGTGCTTATACAAGATGTCAATTATGTGGTCGTC
CACATGCTGTATTACGTAAATTTAAAATTTGTAGAATTTGCTTCCGTGAAGTACGTACA
AAGGACAAATACCAGGTATTAAGAAAGCGAGTTGATAATATGATAATCACAGATCCAATA
GCAGATATGATCACAAGAATCAAAAATGCCCTTACACGTAACACAAAAATGTTATTATT
CCTCATTCTAAGAAAAAGAAAGAATCTTACAAATCTTCTTAGATGAAGGATATATAAAA
GGATTTACTGTATCTGGTGAAGTTAAAAAGAAATTAATGTTGAGCTTAAATACAAAGGA
AATACAAGTTCAATTGNTGGAATTAAGAGTTTCCAAGC

Sequence 2074

CCCTTTGAGCGGNCGCCCGGGCAGGTGGGCAGGTACTTCAGCAAGTCTCTTTCTCCTC
AGCAGTAAGCTCAGCCGGCAGGTGCCTGACCAGAAGGGTTCGGTCGCCCCGAGGCGGGGA
AAGCGAGGAGGAGCTCGTGCATCCCCTTGATATCGCAAGCGGCTGCTCGGGAGCTGCCAT
TTTCTTGAGAGAAGCAAAAACAGAAATCGTGGGAAGAAGTCTCAGTCAAAATCGCGGCAT
CAACACAAGCTGGGAGAAATATTTTTTCCGCCTCGCGCTAAGGATTCTGGAAACCAGGAA
ATACCGAGAAAGAAAGTCACCTTCTCGCGAGAAGTGCGCCACCGAAAAGCGGCAACCTT
CGAAGACTCTTGGGGGAAGGGCGCGGTGCTAATGATTTAAATTCAGGGGTCTNCGGAA
AGACTTACAAAGCCAAAATTTGGCCCAAGATGTGCGANGGTTAACACAAGTTGTCAAT
CAAAGAAAGGAACAGGAACCCCAACCCCTTTAAGGA

Sequence 2075

TABLE 1
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CCGCCCCGGGCAGGTACAAATTGAGCTCTCTATTTCATAACCTCAATGTATGTATTCCTGCC
CATTAAATATACTTTGCACCAGCAAAAGCGATTTCCAACATATGTGTTTTGGAGGTAATTA
AGTAACTCTGTATAAAAATAAATGCACTTTTCCCTCCTTTCCCCAGTGAATGGAAACTT
CCATACTTTCAAATAATAATAAAAAAATAATTTTTAAGAGCAACAGCCCTCAACTCTTT
GCTGGTGCCTGCCATACTGCCTTTCTTCACTCCATTCTTAGCTCTGCTAGTTTCTTCTTG
TATGTCATGATAAAAAGGGAATGTGGGTGTGTAACTTTTGTGTATGTCCCGTTTCCAAAT
TTCCCTCTCCAAAAGCCAACCAATAAACAAACAAACGAAAAAACAGTGCAACA
AAACACAAATAGCATTCCAACAGTT

Sequence 2076

TTTCGAGCGGCCCGCCCGGGCAGGCACATAAAACATTATTCCTTCCTTGGCCTAAAACTC
ATCGCCACCTACATTAAAGCTAATATGCCTGATTACTGTTTTAGAGAACTTATTTTATT
AGGGCAGTTCCAAGCTCAAAAATACGCTAACTGGCACCTTGTTAGCTACATAAAAATGCA
CCCTAGACCCGAACTTACTAGACTCATTATAAAATTTCTTTAAGGTGTCCACGCAGTC
CCTGGTCACACTTGAAGCAGTCCGGAGAAATATCAGCCCTACCCAGTAATCCCCAGAAG
GAACTTACACTTTTTTTAATCTTTTCTTACAACCTTCATATTTTATAAATAAAAAGACAA
AAATGTCAGGCCTGTGAGCTGAAGCTTAGCCATTGTAACCCCTGTGACCTGCACATATCC
GTCCAGGTGGCCTGCAGGAGCCAAGAAGTCTGGGAGCAGCCCGAAAAACCACAAAGAAGT
GAAACAAGCCAGTTCCTGCCTTAACATAATTAACCCACCTTACGACATTCCACCATTATGA
CTTGTCACCACTTATGACTTGTTCTGCTGCCCTGCCCAACT

Sequence 2077

CCCTTTTCGAGCGGCCCGCCCGGGCAGGTTTANGTCANAGTCTTCTNTTCTNTTCTNNNTGA
GATGGAGTCTTGCTCTGTTGCCAGACTGGAGTGCAGTGGTGGCATCTGGGCTCACTGCAA
TCTCCACCTCCCGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAGTAACTGGGACTAC
AGGGTGCAGCGCCACCAAGCCCAGCTCATTTTNGTATTTATAGTAGAGATGGGGTTTCACG
ATGTTGGCTAGGGATGGGTCTCGATCTNTNGGTGAGAGTCTNTTCTGTAATAATATCCTT
GGGTAAGAAAGCAATTTTANACTGTAACTGATGNCAANATGCTTTAAGGGAAGAAGGC
N

Sequence 2078

TCCCTTNCTTTCTCGCACGTTTCGGCCGGCTTTTNCCCGTCAAGCTCTAAAATCGGGGGGG
CTCCCTTTAGGGGTTCCGAATTTAAGTGGCTTTACGGGAACCTTCGAACCCCAAAAAA

Sequence 2079

CCCTTTTCGAGCGGCCCGCCCGGGCAGGTNCAGGGTCTGTCAGAACTGTTGGAATCTTACA
TAAAGTCAAGTCTCAGAAATGTCCGATGCTTCACCATATTCTTATATTCTATGCAATTGT
TGTCTGTGCACTAATCATCTCGACCTTCTACATGAGATACAGAATTAATACTCTGGAGGA
GCAGCTGGGGTTACTAACCTCCATTGTGGACACCCATAATACTGAACAGGCAGCACCATC
TGGCCTGAGTGCACAAGTACCTCGGCCGCGACCACGCTAAGGG

Sequence 2080

ACCNTATAACGGCCGCGAGTGTGCTGGAATTCGCCCTTTTCGAGCGGCCCGCCCGGNCAGGTA
CGCGGGGNTGGTTCCAACTTTTCTGCTNATCTGGGAGGTGNTGGGCGCGGACAGTCNAGA
TGTCAGAGAAAAAGCAGCCGGTANACTTAGGTCTGTTAGAGGAAGACGACGAGTTTGAAG
AGTTCCCTGCCGAAGACTGGGCTGGCTTAGATGAAGATGAAGGATGCACATGTNCTGGGA
GGATAATTGGGATGAATGACAATGTAGAGGGATGACTTCTCTAATCAGTTAACTGAGCTG
AAACTAGAGAAACATGGGTTATAAGATGGGAGACTTCATAGCCATCCAGAAGAAGTGCTG
AAGTAAACCTAAAACCTTGACCCTGCTNAAATACATTGTAGGGGCAAGAAGAACCAAGGA
ATGGGGACACT

Sequence 2081

CCCTTTTCGAGCGGCCCGCCCGGGCAGGTACGCGGGGNAAGTGTGCGCGCCGCCACTGTCCG
GCCACAGCCTAACGCTCTTNGCTGTCTGTTTNGGNTCTCGCGCAGGGCGGCCCGGNTCTG
GTGTTTGGCNGTCGGAATTAACAACCACCATGTCCGAGCAAAAAGGCAAAGACCAAGAC
CACCATAGAAGCGCCCTTAGCGTGCAACATCCAANGNGTTAGNCATGTTNGACCAANNCA
CAGATTNGAGGAGTTCAAAAGAGGCCTNCAACATGAGTTGATCAAGAAANANGAGATGGCT

[illegible]

CNTCNCGCCACGGACGCCCGGCTNTCCCCGNAAGCNCTAAAAACGGGGGCCNCCCACAA
AGGGGGCCGANANAAGAGCENNNAACGGGNACCCNCGACCCCAAAAAACNNGGAAANAAG
GGGGGAAGGGGNCAACGCAAGNGGGGCCAANCGCCCCGGANAAAACNNGAGANNACCGCC
CCNCNGAACGGANGGAAGACCANCGGCCCAAAAAAGGGGNCCACGGGGCCAAANCAG
GGAACAACACACAAACCCCAANCCGGGGGCCANNNCCNNTGGAANCAAAAAAGGGANANG
AGCCGAACACCCNCCCAATGGGGGA

NATTGCGAANTGGGCGCTCTTCNCGCTNNCTCGCTCACTGACTCCGCTTGCGCTCGGTC
CGNNCGGCTGCCGGCGAGCGGGTATCAAGCTCACTCAAAGGCGGGAAANACNGTTATTCC
ACAAGAANCAAGGGGGAATAAACCGCCAGGGAAAAAGAAACAATGGTGAACAAAAAGGCC
AGCAAAAAGGGCCAAAGGAAACCCGAAAAAAGCCCNCGGTTGGCTGGCGTTTNTTCCAA
TAAGGCTCCGGCC

CCCTTANTTTNGNCNTTNNCGANGNACCACACACATAGGTAGCCNGCATTTCATGGAACAG
GCACCGTGGGCTGGGCTGCACCACACCATCTTTCCATGTGTTATCTCTTTCTAGAGACTT
CTTGAAAATTGGTAGGATTATCATATCATATGTTCTTGGAACATCTGTTGACTATTTCT
GTACATCATGGCTCGGACTTGGGTCAAGCTCTTGGCACC AATGTCCTGGCATGAGTGTG
GATGCCAGCAATCAGGTAAGGGACAAATTTGTGGATTGACCCTTGTCCTGCACAGCACC
AGACACTCCCTGGGCCACTTTGATTTTGTCAAGCTTCACTGAAATATCTGTTCTGGCTGC
TGAGGTGCTTGTCCCATGGCATCGAAGAGAACCCATACCGCATATTTCTTAGCNCGGA
TCCCATCGGAAAAAGAAAGTANTCACCAGGGGGCCCTAAGTGGGTGGCAGCCAGGAAGAG
AGCCCCATCATGGACTGNNGGAGGGCCCCAAGGGGC

GGAGCTCCCCGCGGTGGCGGCCGAGGTACATTTTTAAAGAGTTGTTT[†]TTGGCCGGGCGC
NTTGGCTCATNCCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGGCGGATCACGAGGTC
TGGAGTTTGAGACCATCCTGGCTAACACAGTGAATCCCGTCTCTACTAAAAATACAAA
AATTAGCCAGGCGTGGTGGCTGGCACCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGG
AGAATGGCGTGAACCTGGAAGGAAGAGGTTGCAGTGAGCCAAGATTGCNCCCCTGCACTC
CAGCCTGGGCAACAGAGCAAGACTCCATCTCAAAAAAAAAAAAAAAAAAAGTACCTGCC

TTAATTGCGCCCTTGGCGTAATCATGGTCATAAGCTGTTTCCTGTGTGAAAATTGTTAT
TCCGCTCACAAATCCACACCAACATACGAGCCCGGGAGCATTAAAGTGTAAGAGCCTGGG
GTGCCTAAATGAGGGGAGCTAACTCAACATTTAATTGCGGTGCGCCTCACTTGCCCGCTT
TTNCAATTCNGGGAAACCTTGCGTGNCCAGCTTGCANTTAATGAAATCGGCCAC

CCCCGCGTCCGCCTCGNAAATTGTTGATGCTCTTCCCCTCCCCGAGGTCTCGCATNCAA
 ANCCTGGTGGGCTGGCCTTGTGTGGCTGCTTCTCCAGGCCTGGTCAGNACCCAGCAGCGCT
 CAGGGTCTGCTCCTGATGCTGNGCTCTGGGACAGGCACGCCACTGTGNGAAACACTAAGC
 NAGGTAATCGAGCATTTNGTGATCACAGACTCCAGCTTCTGGTCCACCCAGCATGTAGT
 CAGCACTCTGACCTTNACACCAGAGCTCCACAGCGGCTAGGAGTTGACTTCCTGTGTCAT
 GACCTCAGGAAATAAATTTCCCTTGACTTTAAAAAAAAAAAA

TTCTGCTGAGACGCGTGTGGCTNCCTCCCCGCAACANCCAAAATGNTGAAGCTGATCGAG
AGCAAGGAAGCTTTTCAGGAGGCCCTGGCCGCCGNGGGAGACAAGCTTGTGNTGGTGGAC
TTCTCTGCTACGTGGTGTGGACCTTGCAAAATGATCANGCCCTTCTTCCATTCCCTCTGT
GACAAGTNTTCCAATGTGGNGTTCCTTGAAGTGGATGTNGATGACTGCCAGGATGTTNCT
GCANACTGTGAATTCNAATGCNTGCCAGACCTTCCAGNTCTATAAAAANGGGNCAAAAGGN
GGGGGNNNTCTACNGNGCTAACAAGGAAAAGCTTGAAGCCTNTATTACTGAATATGCCA
ATCATGCTCTGAAAAGTGGGACCAGCTNCCAAGCTGNTTNAACCTCGTACCNTTNTTAA
TTTGCTAAAAACTATGAAAGTGTGGAGAGGCTATCCCAACTGNCATCTGATTATTAGTA

TABLE 1
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CAATAAAAAAANTAATTCTACCCCTTNANAAAAA

Sequence 2095

TGTGTAGCACCTGNGGNGTCCTTGNGTGATTATTCTGTNCGAGGTACTTAGGGCAAGTC
ACATGCCCTCCATCCCNTGGCTCANAGATGAAGAGTAAATCCAAACATGTGCCTCGCTC
TTGGTCACTAACTGCTGNCCTG

Sequence 2096

TCGAGCGGCCGCGCCGGGCAGGTACTTTNTTAATGCCTTNGTTGGAGTCCTNATCCTCATC
TTTAAAAAACAGNTTANCCTAAGCCANATTCACCTTTTTTAGTTNACAAAA
GGATTAANTNGCCACANTGTGATT

Sequence 2097

ATTNNCCCTTAATCATCTCACGCCCCATGTATGATTCTCAAAGNGCCTAGCGTGANCAN
NGTCCCTNAGACCACCAATTTCTTNATGTCNCNCTCAAGAAAGCCAAATGACAATNA
TAANGCCATCTCAANCNCAATANCCTACCANAACCACCCNCGGNCCTTATCTANACTTCA
ACTCAAACCTCTGCTCCTTACTNTCTGGGGAGCTTNAACCANNTNACTNATAACTT
TAAAAACCTNTCTNTAAATNTCANAAACCACANCTCACCATTNNACAACCACCCCA
ACACCAANANNTTCCCAAACAACC

Sequence 2098

CCCTTAGCGTGGTCGCGGCCGAGGTACACCAAGACCAATTGCTAAAATCTTGGATTATGG
AAAATTTAAGTATGAAAGAAAGAAAAACAAAAAGTTGAAAAAGAAAAACAATCTTTCAC
AAACAATAGAGAAATTCGTTTATCTTTTGAATCAATTTAAGNGATATAAAAAACAAAGC
AAAAAAGCCAAAGAATTTTATTAGATAACGACAGAGTAAAAGTGGCTCTTCGTCTTAG
AGGGCGTGAAAATACAAGACCTGAACAAGGTAAATTAATTTAAATCTTTTTTATGA
AGTAAAATCGATTGCAAAATTAAGTAAAGAAATGCAATCAGTTGGTAATTTTTTA

Sequence 2099

NGNCCTTNCGAGCGGCCGCGGCCGAGGTACAAATTGAGCTCTCTATTACATACCTCAAT
GTATGTATTCCTGCCATTAATATACTTTGCACCAGCAAAAGCGATTTCCACATATGTG
TTTTGGAGGTAATTAAGTAACTCTGTATAAAATAAATGCACTTTCCCTCCTTCCCCA
GTGAATGGAAAACCTCCATACTTTCAAATAATAAAAAATAATTTTAAAGAGCAAC
AGCCCTCAACTCTTTGCTGGTGCCCTGCCATACTGCCTTTCTTCACTCCATTCTTAGCTCT
GCTAGTTTCTTCTGTATGTCATGATAAAAGGGAATGTGGGGTGTGTAA

Sequence 2100

NCCTTAGCGTGGTCGCGGCCGAGGTACACTGGAGGCTGGAGCCTGCAGATGGCATGGCTC
TGCGGCTCACCTTGCTGCAGTTGGTGGTGACAGAGACTGCAGCTTGACTGTAGTGAA
TTTGAAATTATCTGTCTGGAAGCTCTGAGTTTATCTTGGGACCTCAAGAGGAGAGGATC
ACCAACTCACAGCAATCAAACTCCAAATGGTGCTATAAACTGAACCACACATGGACACG
TCAGTCTTCGAGGACCCTTAGATCAACCCAGGAGGAGCCCTAGCTGCTGTTCCCCATT
CGACGCCCTTTCCAGCAGG

Sequence 2101

NAGGGGCGGGAATTTTGGGNGGGCCCCCTTTCTTANAATGCATTGCTTCGNANGGCC
GGGNGCCCCCCCCAGTGGTGGATGGGATATTCTTNCCAAAATTGGGGGGGGCCCTTT
TTNNGGNCCNNAAAAAACCCNNGGGGCCNCCGGGGCCAAGGTTACCTTGGACTTGAA
AAATTTGGGNCNTTTNTTTTGGGGGNNCCTTTNCCNNNNNNNNNNNNNNNNNNNN
NNNANGGGCCCCGGGGTTTNTTNCNTTTTCCAAAANAGGCCCNNTTTNNNGNGNGGG
GNGGGTTGGGGNAAAAAANNNNNNNNTTTTTTTTTNNNNNNNNNNCCCCCCCCCCCN
TTAAAAANAAAAA

Sequence 2102

CCCTTTCGAGCGGCCGCGGCCGAGGCACTTATTTTTTTTTTTTTTTTTTTTTTTTTTTT
TT
TTTTNTNAANAAAAAANTTTTTNTTNAANTNGGGNCNAACTNTTAAACNAANN
AAAAAANNTNTNTAAANGTTNTCNAAGNNGGNNNNNCCNNANAGGNANAAAAANGAA
AANGNNTNATTTTTNTTNAAAAAAANNTTTNTTAAANTGTTGNNGGNGGGGGTAGG

TABLE 1
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TTAAAAAAAAAA

Sequence 2103

CCCTTTCGAGCGGCCGCCCGGGCAGGTACTCTGTCTCTGTAGTCTCTCCATTCTAAAGTT
TAATTTGGAAAGGTCTGTCTGAATTATCAAAGTAAGAATACTCAGATTTCCATAAGCTC
TTCTCACCTCCTCTTAGCCCAACTCAAATCCATCAGACCTTCTCACCTTGATTTTGAGC
TGGAATGTTTCAATGAGCAAAATAAATTAGACAAANGTTAAAAAAAAAAAAAAAAAAAAA
NGTACCTCGGCCGCGACCACGCTAAGGG

Sequence 2104

CCCTTAGCGTGGTCGCGGCCGAGGTACCTGACCCCGGTCCTCAAGGAATCAAAGTTTAAG
GAAACAGGTGTAATTACCCAGAAAGAGTTTGTGGCAGCTGGAGATCACCTAGTCCACCAC
TGTCCAACATGGNANTGGGCTACAGGGGAAGAATTGAAAGTGAAGGCATACCTACCAACA
GGCAACAATTTTTGGTAACCAAAATGTGCCGTGCTATAAGCGGTGCAACAGATGGAA
TATTCAGATGAATTGGAAGCTATCATTGAAGAAGATGATGGTGATGGCGGATGGGTAGAT
ACATATCACAACACAGGTATTACAGGAATAACGGAAGCCGTTAAAGAGATCACACTGGA
AA

Sequence 2105

CCCTTAGCGTGGNCGCGGCCGAGGCACTTTTTTTTTTTTTTTTTTTNGCTTTTTT
TT
TTTTNAATGGCCAGGCTCCCAACATTTNAAAAAACTGCNCCCCCAATGGGTGAACAAA
GTAAAGAGTAGTAACCTAAAGTTCACCTGAGTAAGCCACTGNGGAGCCTTAAGNGGNGAG
GTCTTCCAATTTNANAGNGATGNGNCTTCAACTTGTATNATNATTTTANGCGAAAAACA
TAA

Sequence 2106

TCGGCGTCGCGACCCCCGAGGACCTCCTCTNCTCGCTCTGTGGCATACTAGTCCTGGG
CACTCAACCGCGGAGAGCCCCGACCCCGGGGTAGCGGCTGAGCCTCAGCCGGGACCGGN
ACCGGANCCCGCGCGGAGCATGTNATCCGGGCTGGGGCAGCTGGNACAGTGGGCTGGGT
TGGCCCTCCT

Sequence 2107

AATTTGTGTGTTGTGTTGTTGGGGTTTTGTTTTATTTCTTACATTANAGTNCATA
TTTTCTGGGATTTAAATTATAGGTGTATTTCTATTCTCTTGAGAAAGNAGACTAAACAG
TCTTTGCAATGATGACGGATGCACACAGANAAAACATTAGAAGACATTACTTTCTATCC
TCTCATGTGGTTGANCATTCTTACACGCCAAATGACTAAATTGGTGTTTCNTAGGAAGGA
GCAGCTGTCACTTACAATGTGAAAATATTAATGTTTTAGGCCAGNNGGCCAAACCTTCAA
GGGGGCTGTGTTGGNCAATTTATNGTCCCCTNATNCTTTNAAAAATTTGAANGGTTCAN
NNAANTTGTNNAACCAACCAAAACNCCCTTTNANCATNGNGGGGGCAANGGGGTT
GGGGACCTTNGNGACCTTAANTGNATTGGCCAATTACCGCCTTGGGGCCTTGNTNAANGC
CTTCAACNCCNAAAANAATTGGCCCACCAATTGGGGGGTCTTTTNGTNANACCTTNNTTG
NACCAACCAACAACCTTAANCTTNGANCTTCAAAANGGCTTGGGGCNAGGGTANCAACA
ACNTTCAAGGTTTATNCCGGCTTCNCAAANGGCGNCTTNAACCTTNNTTGGNGAATTTGA
AGGCTTAAAAACCTTGGCCATGGAAATCCCANCTTTAAGGGCCCAATCCCTT

Sequence 2108

ACCACGCGTCCGAGCTCGCTCAGCACTCCCAGGTCCTTAGCACTCCCAGGTCGTAGCTGG
CGCAGTCAGTAGGAAGTGAAGTATGTCTCTGATGCACCACGTGTTAGACACAGCACAG
TCCTTTTTCTGTTCTACGGTGGAAGTAGTTTCTCTTTGGGCATGCTGACAGCACTTT
TCATAGCCTCACCGATGAGCCCTTCTGCGGGAGTGACTCCATGCCTGTATACAGAGTAT
TTATACAGATGTTTTAGCATCTTCATATGCGGTGTTAACCCTAGTTCTGTACAGCATAT
TCTGTTCAAGTATTTTTTACAAGCTTGTGCTGTAGGCACATGCCTTCTGCTGCAGAAGT
GGACACCCGTGGCACACCCACCCCGCCCCAGTGGGGTGCCATGCCTTCTGGGACATTGC
CACTTCTGCCCTGGAAGTCAATGCAGGTACGTAGTAGCTGCTATTGCCAGA

Sequence 2109

NCGCCTATCACATAGTCAAACCCAGTCCCTGGCCACTGACAGGAGCTCTGTCAGCTTCT

TABLE 1
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TAATAACGTCCGGCTTAATCATATGATTTCACCTTCTACTCTATCACCTACTAACACTAG
GCCTACTAACCAACACACTAACCTTATATCAATGATGACAGTGACATCGTACTGAGAAAG
CACATACCAAGGCCACCACCACAATACTCCCGTCCAAAAAAGCNCTTCCGGTACCGGAA
TTAACAACATATTTTATCANTTCTCNAAAAAGTTATTCTTTTNTTTATTCGNGCCTTCT
TCTTGAGCANTTTTTANCCACATCTAAAGGCCCTCAGCNCCACAACAACACCTGGCTTTA
AGGNGGGGCNCAATTTGNACCCANCCCANACAAGGGCGATTANCCCCCCCCCTGNAACCC
CCCCATTAGTAAAGGTACNCCCCTNNCTTAAAAACAACCTTCTTGGNNATTTAACTTTG
NCAATCCTTGGGGGGGTNAAACAAANTCAACCTGGAAGGCTTACCNACAAGNCCCTNC
ATTAATAATTAATNGACCCCGAAAAAANCAAAACCAANTCCCAAAGGCNCCCTGCCTCA
TTCACCAATACCTAACTTAGGGTTACCTTAT

Sequence 2110

CGTCCGGGACCTTTATGTCTTGNAAGATGTCTAGGCCTGGCCGGGCGCGGTGGCTCACA
CCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCACGAGGGCAGGAGTTTGAG
ACCAGCCTGATCAACATGGNGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCGGGC
ATCGTGGCACATGCCTGTAATCCAGCTACTCGGGAGGCCGAGGCAAGAGAATNGNTTGA
ACCCAGGAGGTGGAAGTTGCAGNGAGCCAAATCACGCCACTGCACTCCAGCCTGGGCAG
CANAGTGAGACTCCGNCTNAAAAACAAAAACAAAAAGCAAAACCAGATGTCTAGG
CCAATGATAATTATTTTGTATGCATTGTGGATTANGNTCTTTGTTAACCCCACTGTCTT
GGGGAATGATGCCTGCTGGGAAATTGAGTTTTTGAAGTAAACATGGAACCTTNCCTGCTT
TTTTCTGGNTCCTATGAAGTTTTGGAACATNTGAAACACAAAACTCACCTTGAAAT
TTGAGCAGGTGATGATGGCAAAAAATTATT

Sequence 2111

GCGTCCGCTGATCTGCTTTGGGACGGCCTTTATATACTTCCTCCTTTCCAGGCCTTCCAC
CACCAGTGACCACTATTCGACATCTGGCCCACTCTCAGTCATCCTCCTGCTTATGCTTGT
CTNCTCCTTGAAGGCTTCCCACTGCATGTAGGACAAAGGTCAGATTTTGTAAACAGGCCAG
GCCTGGNCTTNATAGTCTGGNATCCACTAATTTATGGTCTNAGTCTNATCCCTTGGAGGA
TTACCTCTGNCCTTNGNAAGCTCTGTGCTCNG

Sequence 2112

TTCATAACAATTCTCCTACAAATCACCTTAATTCTGACATTCATGGCCACAGAATAATT
ATATNCTACATTCTATTTGAAACCACCCTTATCCCCACCCTAATTATCAGGTACTAAATG
AGGCAGCCAAGCAAAACGCCTTAACGCAAGNACTTACTTTCTATTCTACACACTAACCGG
CTCTCTACCCCTACTCATCATACTAAGCGCACACCTACAAACAACACAGGCTCACNTAA
CATCACAGCTANCTAACACTTCACGNGACCAAAAAACNTAACAACCCACCTGGGNNCCC
CACAGCANTTACCCTGGGCCTAGCNANTGGCATATATAAGCGCTTTTATGGACCAAAAAA
TACCCCTTNTTATNGGGGTCTACACNCTTATTGACTTCCCNCAANAAGNCCCATGNTTG
AAAGCCCCNCATTTGCAAGGGGNTCAAATANGTCCTTTGCACGNCAGNTACCTTCCTTAA
AAACTAGGGCNGGCTATGGGGCAATAAAATACCGGGNTTTAACTCCCATTTCTTCAAAN
ACCCCTTAAACGGGAAATTANCATAAGCCNTACCCATTTCCCTCATTATTAATCCCTTA
TGGGGGCNATAANTCATAACAAAGGCCNTAAACANTGCCTCCCGACAA

Sequence 2113

TTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACCTGCTACTTTTTAAACAATTTCAACTGCA
GCTCTCTTCTACTAAGTNAGATGGGNAAAGCATGCCATTTCTGTTTNCCTTNGGATTTTA
CTTTTGTAGAAACACACATGCTTCCACTGCCATCTGACACTTCTCCACACGCTTTCATNT
GTAAACCTGAATTCTATTTNGAGTACCTATCAAATACTTTCTGGAGGNGGGGCACGCTCC
GCTCGGTGATGATGCTGATCCACTTGGGAACATCAGTTCCCTTCTCTTCACTCCAGCGT
CATAGAGATCCCGAGCATCTTGGNNAATCAGTTCATAATCAATGACAGAGCCATCCTCTG
CTCTTCTACCTTTGCCA

Sequence 2114

GTGGGGGGGGGGGGGGGNAANCTCGTTGGGACNCGCCCCNAATTNNNANNNAACNNNGNN
CNNNCTNGAGGGCGAAGGNATNNATAAGCTTGAGGGGGGGGGGCTGGANACCGANGNATC
CACTAGTTCTAGAGNGGGCCGCCNACCGGGGTGGNGCTNCAGCTTTTGTTCCTTTAG

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GGTACCTTGTCTGGAGAATGCAGTGACAGCACCGGCCCATGCTTGAGAACCCANGCGGCT
GTGCAGAGGGCAGCCGACCACTATAGCCAGCAGATGGCCCAGCAACTGAGGCTCCCCACA
GACACGCTCCAGGAGCTGCTGGACGTGCATGCAGCCTGTGAGAGGGGAAGCCATTGCAGTC
TTCATGGAGCACTCCTTCAAGGATGAAAACCATGAATTCAGAAGAAGCTTGTGGACACC
ATAGAGAAAAAGAAGGGAGACTTTGTGCTGCANAATGAAGAGGCATCTGCCAAATATTGC
CAGGCTGAGCTTAAGCGGCTTTCANAGCACCTGACAGAAAGCAT

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GGCAGCAATTGGAGCTCCCCGCGGTGGCGGCCGCGCNAAGGCCAGGTACCCTTGGAAGATGGGAA
AGGTGAGGGAAATATNNGAAGCAGGGTCAGAACATCCACTAAGAACATAGCACCTNAGTA
NAGCTTACATTATATGAGCCAGGGTAGAGTTANTACTGAAT

[illegible]

GC GAAT TGG ATCTC NCCG CGGTGG CGGCCG AGGTAC CTTTTT AAATCT AGCCCAGT ATAA
AC ATTAG CCTG CTTA ATATTT AGAC ATTTAT AGGTAGA ATTCTG AGCA CTCA ACTCAT GT
TTGG CATTTTT AAAGTAAAA ACAAGTGT GACTTC GAGG ACCAAAG AAAATTG TCAGCT ATAC
ATTTAT CTTTAT GAAC TCATTT ATATTC CTTTTT AAATG ACTCG TTGTTCT AACATTT CCT
AGAAGT GTTCTT ATAAAG GTCTA ATGTAT CCACAG GCTG TTGTCT TATTAG TAAATG CAA
AGTAAT GACTTT GTCTG TTTTACT CTAGT CTTT AGTACT GGTGTG CAGG ATTCAG CCGAA
TGGCTT GCCTC AGAGGGT CAATGG CGTTCT GAGATGG TGGCAG TTGTCC AGACGG TAGC
TTGCTATT GCCAGT CCAGAG GTGA ATTCTG GGTTCT TTTGGCT

GC GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTGGTGAAAGTTCTTGATGAGGG
TCTCAATGGCCCTCTCCACATCACTGAATTCCTGAGCATCCTCTGCGTTGGCTGACCGAC
ACTGTCCCATGGTGCCCATGTGTCTGGTCCTTTGGTGAGAGTTCTGTTGTCCTATAGCT
GGCCCCAGAGGAGCTGATGGCTCATGATCTGTTGGCAGCCGCTGAGACAAGACAGGAGGC
CCCGCTACCTGACCCCG

CCGCGGTGGCGGCCGAGGTACCCGGTGCGCATAAGAGGAAGATTTCTGAAGAGTGCAGCT
GCCTGAACCNANCCCTGCCGAACAGNTGANAATTGCACTGCANCCATGANTGAGAACAAT
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AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCACGANGTCATATGTTATTTACAATT
GGGTTTGTGTGGGATGGGAAGTAGGGCGGATGAGCCAGTACTTNTGCAATGAAGATGCAA
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ATTCCCAAAGGGTCCACCGAGNCCTGAACTCAGCTTCATCACCAACATTTCCTCGCCTTNA
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NNAACACNNAAGCACACTNTCTTGTCATCAACCCAAGTTCAGAGACAAGGCCTCCNCANA
TGNGGAAGATGATGCCCTTAGACACCNCAACCTGNTTGTCTNNTTCNTNGAAGCNCAA
GCAGCCTGNATCTCAACTGAAGAGAAGGGG

TATAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGGGGAATGGAA
TGAATGGAATGCAATGGAATGGAATCTTCCGGAATGGAATGGAATGGAATGGAACGGAA
TGAACGGAATGGAACGGAATGGAATGGAATGGAATGGAATGCAATGGAATGGAATCTTC
CGGAATGGAATGGAATGGAATGGAATCAACCCGAGTGCAATGGAATGGAGTGAATGGAA
TGAATGGAATGGAACAACCCGAATGGAATCGAATGTAATGGAGTTGAATAGAATCAATC
CGAATGTAATGGAATGGAATGGAACCGGAATGGAATTGAATGGAATGGAATGGAATGCAA

TABLE 1
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TGGAATGGAATCAACCCGAGTGCAATGGAATGGAGAGGAATGGAATGGAATGGAAGGGAG
ACTACCCGAATGGAATGGAATGTAATNGAGTGTAAAGGGAATTGAATAGAATCAATCCCAA
TGTAATGGAATGGAATGGAATGGAATGCAATGGAATGGAATCTTCCGAATGGAATTG

Sequence 2129

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACNCGGGGNACTGAAANTCCA
CACGACANAATAGCCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCCTGCAGAACGGCTG
CCTAATTTACAGCACCCATGAGGAAAGGCCACTTANGGATGCAGCAAGAAGGAGCCATCT
GCAATCCAGGAAGAAATTCTTGCCAGGAACCAATTGGTTGTCACCTTCATCTAGGACT
TCTAGCCTCGAGAACTTACAAATGGTGATGATCATCAGGTCAAGGATAGTC

Sequence 2130

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAACTGAAAATCCAC
AAGACAGAATAGCCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCCTGCAGAACGGCTGC
CTAATTTACAGCANCCATGAGGAAAGGCCACTTAAGGATGCAGCAAGAAGGAGCCATCTG
CAATCCAGGAAGAAATTCTTGCCAGGAACCAAAATTGGTTGTCACCTTCATCTAGGACTT
CTAGCCTCGAGAACTTACAAATGGTGATGATCATCAGGTCAAGGATAGTCTGGAGCAATT
GAGATGTCACTTTACATGGGGAGTTATCCATTGATGACGATGAAATGCC

Sequence 2131

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACTATCATTATGTAT
TATATACACTGATACTTTAAACTTGTGTGGAAAACTAATTATAATTTGTATCACA
CACCTGGATATGTGTTCTGTTTCTAAGCGACATTTGTGAGAGATTATTGAAAATGAGA
GCGAGCAAATAAACTTAATTTAATCTTGCAGATACATACTTATGGGAAATTTGAACAA
ATGAGTGAAACTCTGTGTTTTAGTAGGCTGTGATAACATTTCCGGGCACTTTGCAAAA
GGACTTTCTTTTTGCCGGGNGCTTTAATNANTTAATAAAAATTTTTTAAAGTTAAAA
AAAATNGTGGNAAANAAAACTTTTTTTTTTTTTNTTTTTAAAAANNAGGNTTNNANNAAC
NTTTNTNTTTNGCCGNANNAANCCCCCCCCCGGTTTNCNGGGGAAANAAAAAAAT
NNGGGCCCNCCNTTTNTTTTTTTCNNGGGGGGGGGGGGGGGGGGNTTTTTTTTTTGN
GAAAAGNGNTGTTTTTNNCCCCCCCCCCCCCTTTTTTAANANAAAAAAATTAATTGGG
GGNNNTTTTTTTTTNNATTNNNNACCCCCCNCAATTNNGGNTTTTTTANNTNAANANC
CCCCNGGCCNTTNTNATANATGCCCCCNCCCCCCC

Sequence 2132

GAGGTGGTTACATTGTCGAAGGACACCAGCTGCGGAATTTGCGGNTTTGGCAGATTGAA
ATCATGGCNGGTCCAGAAAGTGATGCGCAATACCAGTTCACTGGTATTAATAAATATTTTC
AACTCTTATACTCTCACAGGTAGAATGAAGTGTACAGAATCCATTCTCATTCTTACT
TGCTACATTATGACCATGAGGAGGGCANAGTAGAGGTGAACTCTCTGTATACTTGCTGAA
AGTCTTCTTGACCT

Sequence 2133

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACTTTCAGTAAGAGATGGG
GTTTCACTATGTTGGTCACTATGGTCTTGATCTCTTGATCTCGTGATCTACCCACCTTGG
GTTCCCAAATGTTGGGATTACAGGTGTGAGCCACTGCACCAGGCAAACTGCGATCTTTT
AGTGGTGCCTCTTCTCTTTTTGACTTAAGGATGTTGTCCCTTAAGGAAACCTGGAGGCT
ACTACTGTGATACACTACTTGAGAGATGGATTGTTGCTCTTTCTTCTACAGTCTTACANG
GAGTAGATTATAAGACCGGAAGATGTTACCATTTGCNTTAATTGTTGGAAGCTGANAGCT
TTAATTTTTGGTTNCAACTGTTTTTNGGGANNTCCCGNAAAAATTTNNNNNAATTTT
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GGGNGGGGGGCCCCNNCCAAAAAAGGGGGGTTTTTNTTNCNGNNNCCGG
GGGGGGGNGGNCNNTTTTTAAANCCTTTTTTTTGNNTTNCNCNAAAAAANNAACC
CCTNNNGGGGNGTTTTTTTTTT

Sequence 2134

CCGGGCAGGTACAAGAGATAGAAAGACAGTCCTTGCTGAAAGACAAGTCTGAATGCTCC
ACTTTTTCAATTCTCTCTCCATTCTTCAGTAAGTCAACTTCAATGTGCGGATGGATGAAAC
CCAGACACATAGCAATTCAGGAAATTTGACTTTCCATTCTNTGCTGGATGACGTGAGTAA

TABLE 1

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ACCTGAATCTTTGGAGTACAGGACAATNAAGACTACTCCTATNTGCGGAACAACTAGCTT
TCTATTTAGTTCTAGAATGTTGAACTGACCGATTGGCTGACATAAAAAGTCACATTTTAC
AAAAAAGTGTCTCCAAATGCTTTGACTAGGGGAAAAACCCCTTTTCAATTAGAGGGAGCC
ATTNTGCAACAAATTTCCACAAATAATTGCTTATTCCAAGGGGCAANGGCACCATTG
ATATNGGGAAATTTTTTTGTTTTTNGNGCCAAATTTAAGGGNA

Sequence 2135

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCCAAGACTCAGCACTAGTCTGATG
ACCTGCTAATTCAGTACAGCATAGGGCTGTCTGTTGTTTTGCGCAAGTTGGTGTGAAC
AAAGTTCACAATATCTGGTGAATAGGAGCCTTGAATACAGCAGGCAAAGTGACATTTT
GCCAGATGACTCCCCCTTTTCGGAGTACCTTGTCAAAAAACACCGCTGAGTCACTTCCA
GGTGCTGTTAAGTTTTCTTTAGTGAAGATGTCTATACCAGAGGGAGCATAGTTCAGATG
ATTCCTCAGCGGCAATGTAGTAGTGTCTAACATGCTTCCCACGGATATTATCCTTTTGA
TGAAGACTTTGTACACTCCTGGACCTGGAAAAAGGCTTGCAAACCGGC

Sequence 2136

TNGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTGAATGTAGAAA
CAATGAGGATGGACCTGGTTTAATAATGGAAGAACAGCACAAAGTGTCTTGAAGAGCCT
TGAACATAAAACACAGACACCTCCTGTGGAGGAGAATGTAACCAAAAAATTAGTGCCTG
GNAATTTGGGCTGATGAGCTTTCTGGATCCTAAGCCACCTACCGAATTNTTGGANGGTT
GGCTGNNGGTGTGGGGAAACACAAGTCTTTTCCAATTTTACAAAACGAACCAATTGACC
CCAGGGACTTNTTGGTTTATTGGGTGGGG

Sequence 2137

CCGCGGTGGCGGCCGNNGTNCNCGGNGCCNGAAGAGGAAGATTTCTGAAGAGTGCNGCTG
TCTGAACCGAGCCCTGCCNAACAGCTGANGAATTGNACTGCAACCATGACTGAGAACANT
AAGAANTCCTTGGAGAGCACCTACGGCAACTAAAATGCCATTTACCTTGNAACCTGAT
GGAGGGGAGAAAACT

Sequence 2138

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNCNGGCCAGGTACCANATGAANNG
NNAAGACAAGGCCATNCNCACTTTATAGAGGGNGTNAAANTAAACCANAGNTCCNGGGA
GAAAGAAANG

Sequence 2139

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGTNNATCATATTTAGGTTATTTATT
AATGAAAGGTATNTGANATTTTCAGGAATACAAATTTGCACCCTGATGACCTCAAATGC
GTGCAACAAGATGTTTAATACANGAAAAATAACAAAAAACTGTTGTTACAGTGTTAGAA
TTTTTAACTTTAAAAAACCATGAATTTGTATTGNTTAAATTGCACATAAAATAATGTTG
ATATATACTTAAGCTTAAATTAATTNCAACANGGNAACATTTTCCAACCCAGAGGTGTG
GCCTGATGTTGGGGTTCAANTCTGGACTTNTATTTTTTGGGTANCACACTCAACTTTTGA
ATTGNTTAAGGGNTTATTTNANCCATTCTAACTCTANGAAAAAATNTTNAAATTNCGT
TTCCCAAAGNCATTANCCGNGGAATTTTTTGTGATTTTCTNCAAGAAAAAATTTTTCGG
GAGGTTAAAAGGAAGGNGTNTAATATCACTTAATTATCCCAACATTTTCTAAAGGGGGGG
GGAAAC

Sequence 2140

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTATCAGCTAATTGGGCTCCTTT
GAAATGCTGAGGATCTGCTTACGCAGGTTAACTCTTTGAGGAAGGGGGTNGGGTAAGTAG
CCCTTAATGTCTTGAAATCAAGGGGCCAGATGGCGTTCGTCAGGCTTTCCAGCTAAGG
GAGAGTCTACTCATATGGGAAACAAGCCTAGGTAATTAAGGAGACAAAAAGGGAAAATTT
AAAAATAGGGTTAGTAAAAACAAGGTTAAATAGGGTTAGTAAAAACAAGGTCAGGCA
TTACAAAAGGATTCTCCTGTCTCAGCCTCCACTGGGATTACAGGCTCGCACCACCAAGCC
CAGTTAACTTTGTATTTTGTACCTGCCCGGGCGGC

Sequence 2141

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTT
NTNAGCAAGCACGTGCACCTTATTGAATGACACTGTAAACAGGTGTGTGGGTATAAACTG

TABLE 1
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CTGTATCTAGGGGCAGGACCAAGGGG

Sequence 2142

TGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTA CTCTACCCTTGTCCTCTCCTAA
AGGGAGCACAAGGAACTGAAGAGACTGAAAAAGAAGAGAGTTTGTAGCTGCAAAAGAAT
AGGGATAGCAAGGAAACCCAGAACTGCATTCCCCTAAGTGGGGCCATCCCATGTGATTGA
ATTGTCCATAGCTTGCCCTATGGTGAGAAATGTGCATGCTCCGTGAGCTGGTCTCTTGAAA
CAGGACTTATGCTTCCTCTATATTCTGGTTAAATTTTCAAACACATAAGTTCAGTGAGC
ACAGATTTCTTATCCAGAGACAAGTAGAATCTAACCAGAGACTGTTGGCAGAGTTTCCAG
GCACTTAGCCATGTTCCCTTCTGACTCAAATCCCCAAAGGCCCTTCACTCTCACTGAGAA
TCACACTACTGTCCCATAGATAAGGCAGGCATTGAAGCACCTGTCGTGATCCTCTAGGGG
GGAGAATGAAAGGTTATTTTCTGCATTGCATCATCATAGCTTTTAATA

Sequence 2143

AGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNGGNGC NNNGCTCTACAGAATAGAGGCN
ATNCTTTAGCTTAAGCCTGTCTGCTGACCAGAGAATGGAATTNTGCGTGGNCTCANGGAA
CAAAAGGAACTAGGCAGGGAAGGGGAAGAAAAGTGC

Sequence 2144

GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGNGGNACTTNTTTTTTTTTTTTTTTTTTTT
TTTTATACTGATAATTCTTTATTACTAAAGGTTTATTTACATAGNGTTTANNGCNTAAT
AAAAATAAATTACAATACAAAAGTGCTNNTTAGGAAGGAGACACTAAACAACAGGCCCA
TNTTACCCCTTGCTNNTTNGCCAAGACATAAGCTACAAATTTGCCGGA AAAAAGTGNCCA
TACATTTTTAACTACTTCTTCATTATTCTTATGGACCATCATCCAGGACATNTGTTTGAA
GAAATATCCAGTTATAATATTTCAAAGGNTNGAATTGNGAAGAAAAAATATAAAATGT
GATTAAAGGATNTNTAGCCTTCAGATGTAATTTACNGGGTTTAAAAATTGGCCCTTTAA
AACTTTTGCTTTTTTAGACNAGNNNTAAAAAGGCACAATGGAGACNCCATATTGTTANTG
GATTTTCANAAACNGGGGGNTCTTNTGNGNAATNCNTACCANTTTTTTTT

Sequence 2145

AGGCACNAGANGANTTTNCTTTTTTTTTTTTTTTTTTTNCTGNNATACAAAGAGCAGATT
TTTATTGAACCTTGGGCNATAACTATATTNCCATACAATNTAAATATTCATGAATAGTTTC
CCAAGTCTGGAGCGACCACATAGGGAGAAAATGTAAATGTCTCAATTTTGGTTNCACNA
AAATGTTTTTTTTATATCAAAATTTGNTTNTNAAAGCTTGGNGGATTAGCTTAAAAANA
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AAATTAAAAAATTATGAAAATATTATCCTCATTAGTTTCATTAGTGCCCATGGAAANT
TAATTATTCTCTCTGCTTATCTTTGGGGGGACAAGTTTCAATGGAAAGCCTGTCAGNT
TAANTTCATTAAGGTTT

Sequence 2146

GCTCCCCGCGGTGGCGGCCGAGGTACAAAGGAATAAAAATGTTACAACCTAAAAAACA
AACACCGTAAAACATTTAGAGTAAAACATGACAAACGTGCTGCTTTAGAGGAAAAAGA
TTTCATTTGAAGAATTTGGACTTCAAGCTACAACATCTCAATGAATAAGTGCAAGACAAA
TTGAATCATGCAAGGATTGCCGATTACAAGAAGAATGGGTCTGTAAGGACACGTTAACAT
AAGAATCTTCCCTCATCTATCTCTTACTAAAAAGCCTATTGGAGTTAGAATGGGATCTGG
TAAAGGTTCAAGCTGAAAAATGAGTAGCTGTTGTTAAAGAAAATACAGTTATGTTTGAAGT
TGGTGGAGTTAAAGAAGAAATAGCTTCGTGATGCACTTCGTTTAGGTGGACACAACTAC
CNTGTTAAATGGAANGAATAATTNNGCANGGGAGGAATAATGGAATTCAAAGATTTAAAG
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ACCCCTTCGTTTTAGAAATTAACCTCAACCAACTNGGATCATNCCTCNAAAATTCAAAC
AAGGTTAGAAAANGGTTTTNCCCGGAATTTTACNNCAATTTAGCCACCCAAAAA

Sequence 2147

TCCCCGCGGGGCGGCCGAGGTACATNTGCCTGNCTNCCTNCTGTCCTTCCTTTTTATTAT
AAGGATACATTTATAGNACCCCATAGAAGGAAAAAGATAAATTTCATAGGCTGNTAAAAGA
GGCTAGGCCTAAGTTATAATGCCTCCTCCTCACAGNCCAATTTNCCCAAGGGGCNTTANC

TABLE 1
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ACCAGAGCAGNTTTTCTAGCTTGNGGACAATNCCNNCAGGCTTGAGTGATAATGNCCCNG
TNGCGGTAGCTCTCCACTTGNTNAAGGACCAANACACCTTAGCAG

Sequence 2148

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTTTTTTTTT
TTTTTTGACTTTATATATAATACTTTATTTTATACAATTCAGTATATCATGTTAACATA
TTTCACTTTTAATTTTATGATATGTGTGACATATTTTAAATTTATGGATTCAATTATAC
TATCATAATTTTTTAAAGTTTGTATCTTTCATTAATAAGGAGGNTCCTTATTAATGGAT
TTTTTTCTGTAGCTTCTGAGAACACATTTTATAGATACCCGGCTTCTAGTTATACCTGA
AGCTCCACAGTGTAGACATGTTTTGGCCAACCTTGTTTTATCGGTGTATGAAATTTGTGC
TAATAGGATGGATCCAATTGTCATTACATTAGAAAATAAATGGGAAACATTTCTT

Sequence 2149

TCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTT
TTTTTTTTTTTTGACTTTATATATAATACTTTATTTTATACAATTCAGTATATCATGT
TAACATATTTCACTTTTAAATTTATGATATGTGTGACATATTTTAAATTTATGGATTCA
ATTATACTATCATAATTTTTTAAAGTTTGTATCTTTCATTAATAAGGAGGTTCCCTATT
AATGGATTTTTTTCTGTAGCTTCTGAGAACACATTTTATAGATACCCGGCTTCTAGTTA
TACCTGAAGCTCCACAGTGTANACATGTTTTGGCCAACCTTGTTTTATCGGNGTATGAAA
TTTGTGCTAATAGGATGGATCCAATTGTCATTACATTAGAAAATAAATNGGGAACATTTTT
TTTACATTNGGGGCAACNTACCAAAATTTT

Sequence 2150

CCGGGCAGGTACACGGGCAAAGGGGCTTGAGAAGGCCCGGNGGCGAAGCCGAAGAGAAGC
AACTGTGCCCGGAGAAGAGAAGCTCGCCCATTCAGACTGGGAACCAGCTTTCAGTGAA
GATGGCAGGGCCAGAAGCTTGTGCTCGACTCCAACATCCGCCTCTGGGTGGTCTTACCCAT
CGTTATCATCACTTTCTTGTAGGCATGATCCGCCACTACGTGTCCATCCTGCTGCAGAG
CGACAAGAAGCTCACCCAGGAACAAGTATCTGACAGTCAAGTCCTAATTCGAAGCAGAGT
CCTCAGGGAAAATGGAAAATACATTCCAAACAGTCTTTCTTGACACGAAAATATTATTT
CAACAACCCAGAGGATGGATTTTTCAAAAAAATAAACGGAAGGTAGTGCCACCTTCTCC
TATGACTGATCCTACTATGTTGACAGACATGATGAAAGGGAATGTAACAAATGTCCTCCC
TATGATTCTTATTGGTGGATGGATCAACATGACATTCTCAGGCTTTGTCACAACCAAGGT
CCATTTCCACTGACCCCTTCGTTTTAAGC

Sequence 2151

CCGGGCAGGTACGCGGGGNANTGCNANANACNCAAANCNNGNTANTACANTGCATCAAAC
ATGTTCAAGATTNNCCAATTGACGGGATTGGATTNAAAGATATNCCACCACTTTTAGCAA
GATGGNGAAGTGCTAAATNACACAATTAATCAACTGGCTGAGTTAGCTAAAGATGCATAT
GTTATTATAGGTCCANACGCAAGANGTTTCTTNCCTTGGGACACCTACTGCANCTNTTTTA
AAAAAACCTTTTATTATGGTAAGAAAACCTAAA

Sequence 2152

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGNNGGCCATTACCCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCG

Sequence 2153

AGGTACACTTCTAGCACCTAGCAGAGAGAGGCTTCACTACATNATGCTTCCTGACATCTC
TCCCTTTGAAGAGCAGTCAGACTCCTGCTTTGCTCTTCAGACTTAATTTGGGGGTTTAAAC
AGGTGAGGTTGCTGGGGGAACCTCTTTACAACATCTCTGAAAGAATCCGGGCTGCCAG
TTTCATTTGGTTGGGTGTGAGTATGATGGAAGACAAAAAACACAACCTTGACATC
TGCAGAAATGGGTTCAAATTTTACCTGCAACTACCAATTCTGTGGCCTTGGTTTCAGCAA
TTAAACTCCCTAAAATTCAAGTTTTTCTTTGTAATAATGGGGTTATGAACAGTACCAAATG
AAGTGTGAAGACAAGGCCATCCACCACTTTATAGAGGGTGTAAAAATAAACCAGAAATCA
AGGGAGAAAGAAAAGATGAAAGACAAACTGCAAAAAATTGCCAAAATGCGACTTTCTAAA
AATGGAGCAGATTCTGAGGCTTTCATGTCTTGGCATTCTTCAGGAGCTGAATGAAAA

TABLE 1

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ATGCAACAAGCAGATGAAGACTCTGAGAGGGGTTTGGAGTCTGGAAGCCTCATCCCTTCA
GCATCAAGCTGGAATGGGG

Sequence 2154

GNCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTAAGTGTGCACGTNGGTTAN
AGGCTGCGTGGCAGGANNGNGNTCAGATTNTCCCCTGCACNGNAATTGGGCTTTNAGGGG
GAAATGGTGGGGCCATCT

Sequence 2155

GAGCTCCCCGCCGTGGCGGCCGCCCGGGCAAGGTACANGTGTGTGTGGGTGAAATGGAGA
TTTGGAATTGAACTCTCTGCCTGTAAATGTTCCCAAATAATTGTTGTGTGTATGATACC
GTGTATAATAAAAGTATTCTTGTAGAATCTGAAAAAAAAAATGTAAAAAANNNTAA
AATAAAGGTTCTTGGCCCGCTNTANAAGTAGTTGGATCCCCCGGG

Sequence 2156

CGGCCGCCCGGGCANGGTACGCGGGGACACAAGACATCATCTTGAAGGAAGGATGGCTTT
GGCCAGACCAAGACCGAGACTTGGAGACCTGATTGAGATTTCTCGCTTTGGCTATGCACA
CTGGGCCATCTACGTGGGAGATGGCTATGTGGTCCATCTGGCTCCGGCAAGTCACTGGTG
CAGTCACGACAGTAGGTGTGGCAGCAGGCCTGCTGGCTGCCGCAAGCCTTGTGGGGATCC
TGCTGGCCAGAAAGCAAGCGGGAAAGGCAATAAATCCAAGAAATTGTCCCAACAACCACCA
ATTNTTACGGAGGAATATTATTAGCCAGCAAGGAGTGGAGTTTTGGTTTACTTGATTTT
ACTGNTTTTNTGGTTCATGGAATCTTTATTTTTAATTGGAGTTAAAAANCNCAGGNAAAT
GTNTTTTGGAAATTGCACCTTNTTATNGAATTNTTTTTAAAGACACAANTTNGGGCTNTT
CCNAAAAAAAAAAAAA

Sequence 2157

CCGGGCAGGTACCATTGGAGTTTAATTGCTTCGCTCCGATGAATGAATTCCTGGCCAAT
GCACCAAAATGATACGGCTCCGATGACTGGAGGAACACCAGGGTCCTTGGTCTCGCACCA
GTTTAGATAAAATGACACAGACACACATGTAATGGTTTTAAGGAGTGGAGAGTTTATTAG
GCAAGAAGGAAGGAAGAAGAAACAGCTCCCCATACAGAGACAGAGGGAGGGGGGATTA
GAACAAACAGAACTTCCCCGCGTACCT

Sequence 2158

CCGGGCAGGTACAGCGTCATATAGGCTTTGCCTTTAATGATCTCTTACGGTTAGAAAACA
CAATAAAACAACTGTTCCGGCTACTGGACAGGTTGTATATTACCAGATCATCACTAGCC
AGATGTNACGTTGGCAGATTTGAAGTCCTTTATTGAAATTCATAATAAAGAATTGTTT
TTTCTTTGTGTTTTAATAAGAGTTCAAGGAATTGNTCAGAGTCTTGTAATGTTATTT
TAATAATCCCTTTTAAATTTTTATCNTGTTGCTGTTTACCCTCTNTGAAATATGNATTT
TATTTTAGATTTGCCTAATGNCCANTTCATTTCAAGGNAAAATTGCCCAAAGAGGGGTAT
TTCCCTTNGGGGGAAAAANNGGGGNCNTCTTTACCAAGTGGTAAAANTTTTTTTCCC
TCCCTTTAACCCTTTTTGCTTTAATCATTCCAANTGNGGCANGNAAATTTTTTCTTT
AATNCCCTTTGGTTGAAGNGGCAANGTTTTGTTTGAACCTTGGAAGTTT

Sequence 2159

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCCATCCTACCCGG
CCTGGGCTGACCCATGGGGAAGGCTGGCTAATTTAGTGCTTCTGCTTGGTTGTTACAGGG
CCATTTAGGTTTGGGTGTTTTCTGGGGATGTTAACATGGGATTCAGGCTCAACTCACAA
GAACTTTTCCATCTCATGATGGATGCTGTTGGGCATGTCCAATGTATGACTTCATGAGT
TACACAGATGCTAATTCGTAGGGGCACTTGAATCACATGGTTGTTTTGTGTCCCATGGT
CAAGCATTCTATCTTATCAGGGCCTACAGTAACATGCCAAAAGTTGCTTCCAACATATTT
CTCTGCTTTGGATG

Sequence 2160

AGTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATCCCCAGTCGTGGCCCTCTGGACAA
GTGGCGGGCCCTGCACTCATGAGGGCTTCCAATGTGCTGCCCCCTCTTAATACTCATTG
TCAATTTGAGAAAAAGGACATATGAGTTTTTGATTTATTAATGAACTTCCTTTGAAAA
ACTGCTTTGAATTATGATCTCTGATTCATTGTCCATTTTACTACCAAATATTAATAAGG
CCTTATTAATTTTTATATAAATTATATCTTGNCCATAAAAAAAAAAAAAAAAAAAAAA

TABLE 1
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Sequence 2161

ATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCGAGGTACCCACGTAAAGACGTTAGGTCA
AGGTGTAGCCCATGAGGTGGCAAGAAATGGGCTACATTTTCTACCCAGAAAACTACGAT
AGCCCTTATGAACTTAAGGGTCGTTGAAAANAAANGANTCANAANTNTANAAAAAATN
ANGNNCCTN

Sequence 2162

NCCGGNCAGGTACGCGGGGCACAGCGGCTTNCCTTGATCCTTGCCACCCGCGACTGAACAC
CGACAGCAGCATGNCTCACCATGAAGTTGCTGATGGTCCTAATGCTNGNGGTCCCTTTNC
CAACNACTGTTTACGCANGGCTTCTGNCATGCTCCCTTTATTTGGAGAATTGNGANTTTT
TCAAGNACAATTNCAATTNCACCAAGTTGTTCTAATNACCTGAAATATCCAACAGANACN
NTTTTTNAANGAAGTTTTTCANTAANACCNNACAANTGGCCNACTTTACNAAAATTGGCCA
TTATTATTGAAATNTGTAANNNGNANATTGTTT

Sequence 2163

GACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGGGACAACACAAA
TTACTGCAACTCCAACAACTATGGCAATAACAATCACAGCAATGACCCAAACATCCAAC
TGTCAGTATTCCTTCCTCAGGTTTAGGATATCCTGGATAATTTGAGACTGGAGGCTTGT
AAGTAGGCCTAGGACCTGAGGCACTGGACGCTGGAGATTTTGTAGTGGAAGAAGTCGACA
CTTTAAGACACTTTGGAAGTGGGGGATCCCAAGTACTTGTGGAAGGTGGACACCATCACA
TCCAGGGCCTTCTCCAGAGGGGCACGCCATGACAGCAGTCAGGATCAAACCAAGAAAGAAG
AAGCGCTTAGGAGAGAGGGGTTGTAGAGAGGGGGAAAGAATTCCCGCGTACCTTGCCCCG
GGCGGCCCGCTCTAGAACTAGGTGGGATTCCCCCNGGCTTGCCGGGAATTCCNATTTTCA
AAGCTTTNTCGGATNACCCGGCGACCCTTNCAGGGGGGG

Sequence 2164

ACTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTT
TTTTTGCAGATGGNGTCTTGCTCTGTTGCCCAAGCTGGAGNGNAGGGGCGCAATCTTG
GCTCACTGCAACCTCTCCTCCAGGTTACGCCATTCTCCTGCCTNAGCCTCCCAAGTA
GCTGGGACTACAGGNGCCAGCCACCACGCCTGGCTAATTTTTTGTATTTTAGTAGAGAC
GGGATTTCACTGTGTTAGCCAGGATGGTCTCAAACCTCCAGACCTGGNGATCCGCCCACCT
GGGGCTCCCNAAAGNGCTGGGATTACNGGCATGAGCCACTGGGCCCNGGCAAAAAAACAA
TTTTTAAAAATGGACCCTGGCCCNGGGCGGGGCGGCTTTTTTAAAACTAANGGGGGATNC
CCCCCNGGCTNGCANGGAATTTCCAANNATCAAAGCTTTTNTTTGGATAACCCGCCNN
CCCCNNTNNGGGGGGGGGG

Sequence 2165

AGGTACAAGATAGTCATCTCAGTAAAAGGTCTATTATCTAACTTGCCAAACTTGTTTACT
GAGAGCCCTAAGGAACTAAACTGCCATAATGCCGNGCACAGCTTGNAAGCANTTAGAG
TAAGCAAGATTAGTTTTCTCCTCCAGTTCCAGTTCCTCAGCAGGCCTGGCTGAAGGCCANG
AGGGAAGGAAATATAAGAACCAACAATAAAAATAGCAANTNGCAATAAGGAAGAAATGCCA
TCCCCATGGTAGGCANACNCAATANATTTNTGGAAACCCACCTNTTCCCGGATCANGG
CCTTTCCATTTGCTCACCGGATGCNTNACCGCCTGGGGCCGGGGCCGNCCTTCTAAGAACH
TAGNTGGGATCCCCCGGGGCTTGGAAGGGGAAAATTTCTAATAATTCAAAGCCTTTAAN
TNGGAATACCCCGTNCGGAACCCCTTCCGAGGGGGGGGGGGGGCCCCCGGGTTACCCCA
AGGCTTTTTTTGGNNTTCC

Sequence 2166

CCGGGCAGGTACGCGGNGACGAAGTTCGGGTCCAGGTCTCTGACTTCGGGCTTGTTTCGCT
GGTGGCNGTCGGAGCCGAGCCGACTGGTCAGGATGANCACGGACGTGCAGNTCGCCATC
TTCGACAACATG

Sequence 2167

AGGTACTCCTGGGCAACAGCGAGACTCCGTNTCAAAAAAAAAAAAAAAAAAGAAACCAT
TTATTTTAAAAATGATTAGATTGCTATGCCTCAACTCATAGAAGATGAACCCTTCAAGAA
AACGTGAAGNAGGAACCGGGNGGGCCANNAAATGAAAACAGGCAAGTANAGNTATTANTT
NGGAAAAACATTTTNTCAACACCAAAATGTTAAAAAGACTTTCCTTTGNTAAACCTGGG

TABLE 1

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ATTATGAGNAAGAACTTTTTCAATTGGGGTTANNTTCTAGGGATANACTCAAGTATNTTT
GCANCCACCTTAANAAAACCTTGCCATTAGAAAAACCTGNAAAAGGTTTATTGTTTCCCA
GNATAACTTTTCCGTTGTTTTACCCAAATTTTTNTTTAAGAACTTTG

Sequence 2168

AGGTACTCCAGGGCTTCATTTCATATTTCTTCCAATTTGTAGACGAACCCAAGGAGGCTC
AAGCTTTCCAGATCTAATGCCTTTCTCCGAAGTTTCCTTAAAACCAATTTCTTCAAAGAA
TTTGATACTTTTATCCCTTTGTTAATGATAGCCCTGTTCTATTTTTATAGCTTTTTAAAT
AATGGATAATTTGCATTGACTGTGAGATTTCTTTGAAATTCCTGNAAACNCGACNCATN
AGTTGGAAAATTGNTATGTCTGTGATTGTTTTCTTCTACCACNTGGNTTTCATCGCNAT
TAAACAATTTTTTTGAAAAATTTCTCTTCAAGCCTTNTCTGTGGATTGGCCTGCCT
TCTAATATTACCAATTTCTTGGCCANGGGTCTTAGGATGTAGCCCACCCTCAAAAATG
TGGGGCCTTTTTTTTTCCACCTGGCAAGAATTCAAANAATCGGAAAAATAATGGGGCC
NTG

Sequence 2169

CGAGGTACATTTTNAAGAGTTGTTTTTTGGCCGGNNTTCAGTGGCTCANGCCTGAAATN
CCAGCACTTTGGGAGGCCGAGGTGGGCGGANCACGAGGGCTGGAGATNGAGACCATCCTG
GCTAACAAAAAGAAANCCCGTCTCTACNAAAAATACAANAAATTAGCCAGGCGNGGG
NGGCTGNACACNCTAGTAGGCCCCAGGCCTACTTTNGGCAGGCCTGAGTGCAGGNAGTAA
TGGNCCGCGCANCCCTGNCAAGNGAAANTAAGGNTNTGCNNGTCCGAGNCCCAAAGNANT
GCGGNCCCTTGCCACNCCCAAGGCNCTNNGGCCAAACCAGAAGGCNAAAGGANCTCCCT
ATTCTCNAANAACNCAAGATATACNCAANNGCGAGGGAGGTTTNNGGTTNCTTACCTC
ANTTGGGCNNCAAATTNATAAGGGNTCAATANNANCNAGGNNTAACCAATAAANNACCCN
CACAGGGGNNTCCTTTAACCAAAACCCNTAAAANNACCTGGGGTCAAGTCCNAAATAAAA
A

Sequence 2170

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTACCTGCTGGGAGAAGTT
TCTGAACAACNATATCTGGGATACACAGAAAAGTNTGGAAGANGAGAAAGAAANGCCTAA
ATNGGAATGAGATCCAAGACTAAACGCNAGAGCTAGATTGAGCCGCATTTGAAANCTCCT
TCCNNTTGGGGCNNTTGGCAGAGGGGGAGAAAAGGCTTCAAAGGAACTNNGGTGGCATNANC
ACCCCTTCCCCAATGAGGACACCT

Sequence 2171

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCACTGAGCTCAAGA
CACACTTGGTGCTTGCACTGCTGATACCTGCTCTTTGCCGGCCCCCGCTACCATCCCAT
GTGGAATCTGTGAGTGTCTCTTAAGTAGCGTGGGCTAGCCAATCTGCTCGTTNATGGGT
GTATTTGTAACTCCGAATTCATATGTAATANGGATGCAAGTCTAAGCGTTTCATGTGG
ACATAAATGTATCTAAATAAACTTTCCCTAGCACTGTGGCTGACCTCACCTTACTTTT
ATACTTTAGTATGAACTGATGAGAACTTTGGTAGNGAGTATTTTTTTATATATATACA
TATATATGTATCTATCTATATATATCTCAAGCATCTTTCAGGTCTTGTGTNGTGGNT
TTTTTTAAAGCCCTGTTGTAAAAAAATTACTATTGTGGGATGGGCAGTCTCTCACATC
ACAGATGTNGAAAAGNATAATTTTTATANTNNGTATTTNCAANAAAAATAAAATCTGGGG
AAAGGTNNCATTCTNTACTGGNGGNCCAAAAAATCAATNGGTTTTGTNTGNCCAAAAAA
AAATATTAATAAATAAATATANTNTNTTGAACCTAAAAA

Sequence 2172

AGGGTACATTTTTAAAGAGTTGTTTTTTGGCCGGGCGCAGTGGCTCATGCNTGTAATCCC
AGNACTTTGGNGGGCCGNGGNGGGCGGATCACGAGGTCTGGAGTTTGAGACCATCCTGGC
TAACACAGTGAAATCCCGTCTNTACTAAAAATACAAAAAATTTAGCCAGGCGTGGTGGG
CTGNNAACCAAGTAGTNNCAGNTACTTGGGAGGCTGAGGNANNGANAATGGGCCNTGAACC
TGGAAGGAAGAGGTTGCANTGAGCCAAAAAANTGCGCCCTTGCAACTNCAGCCTTGGGCA
ACAAGANCAAGACTCCCATCTCAAGAAAAAATAAAGNAAAAGTACCTTGCCCCG
GGCGGCCCGCTCTANAACTAGNGGATCCCCCGGGCTGNAGGGAAANTCTATANCAAA
GCTTANNGAATTCCGCCNACCTNGGAGGGGGG

TABLE 1
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Sequence 2173

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATCCCAGCCCCCAGGTTGCG
CTAATAGTCTTGGCTACTTCCCTACAGCTGCTAATCTTAGCGGTGTCCCTCCACAGCCTG
GCACGGTGGTCAGAATGCAGGGCCTGGCCTACAATACTGGAGTTAAGGAAATTTCTAACT
TCTTCCAAGGTTACCAAGTATGCAACCGAGGATGGACTTATACACACAAATGACCAGGCCA
GGACTCTACCCAAAGAATGGGTTTGTATTTAAGGGCCCCAGCAGTTAGAACATCCTCAGA
AAAGAAGTGTTTTGAAAGATGTATGGTGATCTTGAAACCTCCAGACACAAGAAAACCTTCTA
GCAAATTCAGGGGAAGTTTGTCTACACTCAGGCTGCAGTATTTTCAGCAAACCTTGATTGG

Sequence 2174

CCGCGGTGGCGGCCGAGGTACGCGGGGACTCGCGTGGTTGGCGACTCCCGGACGTAGGT
AGTTTGTGGGCGGGTCTGAGGCCTTGCTTCTTTACTTTTCCACTCTAGGCCACGA
TGCCGCAGTACGCGGGGGGGTGAAGAAGGGGCCGCCCTCAAGCAACAGCGACGCAAGAT
GGCAGCCACCACGGGCTCGGGAGTAAAGTCCCTCGCAATTTCCGACTGTTGGAAGAACT
CGAAGAAGGCCAGAAAGGAGTAGGAGATGGCACAGTTAGCTGGGGTCTAGAAGATGACGA
AGACATGACACTTACAAGATGGACAGGGATGATAATTGGGCCTCCAAGAACAATTTATGA
AAACCGAATATACAGCCTTAAATAGAATGTGGGACCTAAATACCCAGAAGCACCCCCCT
TTGTAAGATTTGTAACAAAATTAATATGAATGGAGTAAATAG

Sequence 2175

CCGCGGTGGCGGCCGAGGTACCTTAAAGTCCTCTGGCTCTGAAGCTTCATAAGATGCGT
GAAGAAGGTGAAGAGGAAGGNGAAGGAGTCGAGCGGCCGCCGGGCAGGTACTTTTTTTT
TTTTTTTTTTTTTTTTTGGGGTTTATCATATTTAGGTTATTTATTAATGAAAATATATG
ACATTTTCAGGAATACAAATTTTGACCCTGTGACCTCAAATGCGTGCAACAAGATGTTT
AATACAGAAAATAACACAAAAACTGTTGTTACAGGGGTTAGAATTTTAACTTTA

Sequence 2176

CCGCGGTGGCGGCCGAGGTACTTCTTACAGTCTTCAGGAAATTCATTAAATCAGTGCCTC
CAGTTCCTTTGGCTTCCAGTTTTGAAGGGTCTTCAGAGGTCTTATTCTCCTTTGGCTGCT
GGCTTGCAAGATCAGGATGTACTGTTCTGTTGGCCGAGTGGAGACTGGTGTTCTCAA
CCCGGTATGGTGGTCACCTTTGCTCCAGTCAAGTTACAACGGAAGTAAATCTGTGCGAA
ATGCACCATGAAGCTTTGAGTGAAGCTCTTCTGGGGACAATGTGGGCTTCAATGTC

Sequence 2177

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTGTAGAGTGGTGCTGCTTTAATTCATAAATC
ACAAATAAAAGCCAATTAGCTCTATAACTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAGGTCCGNNCANTCGNG
GNGGCNTAACNCNCTNNGGGNNGGNTNTAGGGNTGGAAACNCTNAAAATNNNTGTTTTN
ANNNGGNTAAAGNNTTGAAATTTGCCAGNTTNTAAAGTCATTAAAGNCAAAGTTTTT
TTAAGGGGTNTTTTTTTTTTAANAAAACCCATTAAACNTTCCATTGGGCCTTANAAANGG
CCCCCGGGGTTTTNGGNAAANTNTTTTTTTNNCCCCNNTTTTTNTGAANAAAAANN
GGGGCCCCCAANTTTTTNGNTGNCCCCNCCNCCCCCANTTGGGGGGNNGGNGGGGAN
ANCCCCNTTTTTTTTTTT

Sequence 2178

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTT
TTTTTTTTTTTTTGCCAATTGTTATTTAGTTTTATTTTATAATCATAACTTAACCTG
CAATCCAGCTAGGCNTGGGAGGGAACAAGGAAAACATGGAACCCAAAGGGAAGTGCAGCG
AGAGCACAAAGATTCTAGGATACTGCGAGCAAATGGGGTGGNGGGGTGCTCTCCTGAGCT
ACANAAGGAATGATCTGGTGGCAANAAATTAACCANTGCTTTTATTATCNANGCACTTNN
CACTATGCACTTTTCTGAAATATTTTGTAAACACTTTTTTGTATTTTGCCATTTGAA

Sequence 2179

CCGGCAGGTACAAATGATGAAACGGAAAGACAAAGGAAATTTCCATTTTGAAGAAA
AGTGTTCAAGTTAATGGAGCCNGGGGAAACCACATGGACTTTGGTCAGCTCTATCAGTT
CTTAACACCAAAGGATGTGGGGATGTTTTCCAGATGTTCTTTGGTGTAAGGACAATG

TABLE 1

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ACATCAAGAGTNGTTGAANGTATCTTGCCACTGNTGGCCTTTTGATTTTTNTCCCACTT
TTTCTTGAAAGATTAAGTAATTTTATTTTAGTTCATTCTAGAATGTTGGGGAGTGNGGC
ACAAGAAAAATANTATANCTGAAATGCATCTGTTAAAAATGTNATGATTGNAAGCATAA
CTGAGTTTCA

Sequence 2180

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGTAGCATGCCAGGAAAGGAAGAGAC
TGGGATGGTTTTTATCTGTCGCTTTCTTAAATCAAGGGCCGCGGGCCGGAGATGGATG
GAGGGACCGGGGATTTGGGAACTCGAAAACGAGCTGAGGGAAGGGAGCCTGTGGAAATAG
ACTGGAGTCTGGGTAGTGTCTGTTTCTAGAGAATGGTCTCGAAGTAACTTCTCGGTAAAG
TCTTCACGGAATTTCCAGACCACGCTTGCCCACTGGGAGGCTTTTAGGACCCGAGACGTG
TGCAGGCTTTTCCAGCCAAAATGAAGTTTAAATCCCTTTGTGACTTCCGACCGAAGCAAGA
ATCGCAAAGGCATTTCAATGCACCTTCCCACATTGGAAGGAAGATTATGTCTTCCCCTC
TT

Sequence 2181

TTTTTTTTTTTTNGTTACATAAATTAACCCATTTATTATAGGCCAGTGATGTCTCAA
GAGTAGAGGAGCGTCTACTGGTCTTCAACTCCTTCAGTCTTCTGATGGCGGACTTTACC
GNGACAGCGGAAGTGGTATTGNACCTGATTTTATTTCCAGTTTTATCCGAATCCACTGG
GGAATGGGACGATTTTGCTTTTGTTTCTTGCCAGGAATCGCTTAATCCT

Sequence 2182

AGGTACTCATCGGCCAGCACGGAGATGCACAGGTTAAATGGTTTACCATCCTGAAAGGGC
ATATTGNGGCATGTCACTCATACTGCCAAGCCCCATTACGCGGGCTGTTTATGACCACC
CAATGACCAAAGTACCTGCCCG

Sequence 2183

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGGCCCGAAGCGTT
TACTTTGAAAAAATTAAGAGTGTTCAAAGNAGGCCCGAGCCGCCTGGATACCGCAGGTAG
GAATAATGGAATAAGGACCGCGGTTCTATTTGNTGGTTTTCGGAAGTGAAGCCATGATT
AAGAGGGA

Sequence 2184

AGGTACGCGGGGACTCGCGTCGGTTGGCGACTCCCGGACGTAGGTAGTTTGTGGGCCGG
GTTCTGAGGCCTTGCTTCTTTACTTTTCCACTCTAGGCCACGATGCCGCAGTACGCGG
GGGGGTGAAGAAGGGGCCGGCCTTCAAGCAACAGCGACGCAAGATGGCAGCCACCACGGG
CTCGGGAGTAAAAGTCCCTCGCAATTTCCGACTGTTGGAAGAACTCGAAGAAGGCCAGAA
AGGAGTAGGAGATGGCACAGTTAGCTGGGCTAGAAAGATGACGAAGACATGACACTTAC
AAGATGGACAGGGATGATAATTGGGCCTCAAGAACAATTTATGAAAACCGAATATACAG
CCTTAAATAGAATGTGGACCTAAATACCCAGAAGCACCCCCCTTTGTAAGATTTGTAAC
AAAAATTAATATGAATGGAGTAAATAGTTCTAATGGAGTGGTGGACCCAAGAGCCATATC
AGTGCTAGCAAAAATG

Sequence 2185

CCGCGGNGGCGGCCGCCCGGGCCGGTACGCGGGGAACTGAAAATCCACAAGACAGANTAN
CCAGATCTCAGAGGAGCCTGGCTAAGCAAAACCTGCAGAACGGCTGCCTAATTTACAGC
AACCATGAGGAAAGGCCACTTAAGGATGCAGCAAGAAGGAGCCATCTGCAATCCAGGAAG
AAATTCCTTGCCAGGAACCAAAATTGGTTGTACCTTCATCTAGGACTTCTAGCCTCGAGA
ACTTACAAATGGTGATGATCATNAGGTCAAGGATAGTCTGGAGCAATTGAGATGTCACTT
TAC

Sequence 2186

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTNGGGNA
AAGAAACCTTTAATGAGGATTCAAGGTTAATAAGGAAGACNCAGAGGGCCAGCACTCAGC
CCCAACCTNCTACGTGTACCAAGAAAAATAAAGAAGAGGCTGCAGAATATGCTAAACTT
TTGGCCAAGAGAATGAAGGAGGCTAAGGAGAAGCGCCAGGAACAAATTGCGAAGAGACNC
ANACTTTCCTNCTGCGAGCTTNTACTTNTAAGTCTGAATCCAGTCAGAAATAAGATTTT
TTNGNTAACAAATAAATAAGATCAGAGTCGGTAAAAAAA

TABLE 1
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Sequence 2187

CCGCGGTGGCGGCCGCCGGGCAGGTACAAAGACTATTGTAGAGACTATCCGGGTTAGTT
TGCAAGGGAAGCCAATGATGAGTAATTTGAAAGAAATTCACCTGGTGAGCAATGAGGACC
CTACTGTTGCTGCCTTTAAAGCTGCTTCAGAATTCATCCTAGGGAAGAGTGAGCTGGGAC
AAGAAACCACCCCTTCTTTCAATGCAATGGTCGTGAACAACCTGACCCTCCAGATTGTCC
AGGGCCACATTGAATGGCAGACGGCAGATGTAATTGTTAATTCTGTAAACCCACATGATA
TTACAGTTGGACCTGTGGCAAAGTCAATTTACAACAAGCAGGAGTTGAAATGAAATCGG
AATTTCTTGCCACAAAGGCTAAACAGTTTCAACGGTCCCAGTTGGTACCTCGGCCGCTCT
AGAACTAG

Sequence 2188

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCCAGGACAAA
TCTCTCCACTTGAAGGAGATCCCAATCCTTCTGCAGCCCCAACATCCACCTGCGCACCT
AGGAAAATGCCAAAAGGATTTCAATATCCAAACAACTGGCTTCAGTGAAAGCTCTGAGG
AAGTGCTCAGATCTGGAAAAAGCTATTGCCACCACTGCTCTGATTTTCAGAAATTCCTCT
GACTCTGATGGTAAACTTGAAAAAGCTATTGCCAAAGATCTGCTGCAAACCCAATTTAGG
AATTTGCGCAGAGGGACAAGAAACCAAGCCAAAATACAGAGAGATCCTTTCTGAACTTGAT
GAGCACACAGAAAATAAGCTAGATTTTGAAGACTTCATGATCTTGCTCTTAAGCATCACT
GTCATGTCAGATCTGCTACAAAATATACGGAATGTAATAATTATGAAATGAACAGTTTTA
AATATGCTGTATAAAATAATGGCAAAGACAGTGTTATTAATAATGTTTCCATCTCAAAA
AAAAAAAAAAAAAAAA

Sequence 2189

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAAGTTGAAAGTCACA
AAACCATAGAAAAGTCTCAGTTTCTACTGTAGAATTCTTGGCATTTCAGTAGTCACAGT
TAAACTTGTTCTAGGTTTTTCAGATGCTCTTTTCCAGGACTTCATATGTTTTGATATTTT
TAAAAATCTTTCTTTCAACTTTTTTGATTATAAGCCTTGCTTGCTTCGATTTGGGATT
AGGCATCGTTGTCTTTATTTTCTTTCCAGGGCAATAATCACTTCTATTTTGTACAGTTG
TTACTTGGGTACCTAAAACCCGAAGAACCTTCTGTAAGAAGTGTGGCAAGCATCAGCCTC
ACAAAGTGACACAGTATAAGAAGGGCAAGGATTCTTTGTATGCCCAGGGAAGGAGGCGCT
ATGATCGGAAGCAGAGTGGCTATGGTGGGCAGACAAAGCCAATTTTCCGGAAGAAGGCTA
AAGACCACAAAGAAAGA

Sequence 2190

CCGCGGTGGCGGCCGAGGNACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TGCNANCACANAGGTGAGCAACAAGTTTATTTTGCAGCTAGCAAGGNAACAGGGTAGGGC
ATGGTTNCATGTTTAGGTCAACTTCTTTGTCGNGGTTGATTGGTTTGTCTTTATGGGGG
GGGGNGGGNNAGNNGAANTCCAATNTGAATCCACAGAAACCAGGGGCTGTANAAACANA
ACCTGANAAGAACGAGCACTCAACCNAGCTNACTNNGGTTCAANNAAAAAATNCCAANA
AGGAAAGCCAA

Sequence 2191

CCGCGGTGGCGGCCGAGGTACAAAGATAAGTCATCTCAGTAAAAGGTCTATTATCTAACT
TGCCAAACTTGTTTACTGAGAGCCCTAAGGAACCTAAACTGCCATAATGCCGTGCACAGC
TTGAAAAGCAATTAGAGTAAGCAAGATTAGTTTTCTCCCTTCCAGTTCCCTCAGCAGGC
CTGGCTGAAGGCCCAGGAGGGANGGANTTTNANACCCCTTTAAANNTNNTTTTCGCNT
TAAGAAGAGNCCCCCGNGGGNGNCNCCTTTTTTTTTTGAANCNCCCTTTTCCCCGGGA
ATNAGGGTTTTTTTTTTTTTTNAAAAANTCCCCCNNGGGGGGNGCCNNCNNTNTTTTT
TTTTTTTTTTNGAANCCCCCCCCCCCCCNGGTTNNNNCNNTCCTTCTTTNACAAAAAAA
AAAAAATNTCCNCCNCCCCCAAAAAAANNNNTTTTTTTNTCCCNCCCCCNNTTTT
TANAAAAAATAAAAAANTTTTTTTTTTTTTTTTTTTTTT

Sequence 2192

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGGCCGAGA
GAAGCAGTAGTCAATAAAGAGAGTGCCGTATTTGCGAGATTGGAGCTGAGCTGTGGCTGC
CAGAAGATAGCGAACGAATGGAACTGAAAGTGGAATCAGGAAAAGGTAATGGAAGAAG

TABLE 1
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AAAGCACTGAAAAGAAAAAGAAGTTGAAAAAAGAAACGGTCACGAGTAAACAGGTGCT
TGCAGATATTGCTAAGCAAGTGGACTTCTGGTTTGGGGATGCAAATCTTCACAAGGATAG
ATTTCTTCGAGAACAGATAGAAAAATCTAGAGATGGATATGTTGATATATCACTACTTGT
GTCTTTTAACAAAATGAAAAAATTGACTACTGATGGGAAGTTAATTGCCAGAGCATTGAG
AAGTTCAGCTGTTGTAGAGCTTGATTTGGAAGGCACCAGAATCCGGAGGAAAAACCTCT
GGGGGAAAGACCAAAGGA

Sequence 2193

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTCCATGGGTCCACAA
AATCCTCTTCAGCTTCTGTGGCATCTGGGCCATGATTACTGGTAGGTGCTGGGTTCCTG
GAGGACAGTCAGCCTTGTAACTCTCCCCGCGGCAGCTTTGTAGCTCATTTTTATGACAC
CAACATCTTTACTGCAGAATCAATTTATCCCAGGTTGTGGAAGACACTGCAGAGGTGGC
CACTGGTCACGCTGGGCAGTTGAGCTGCTGAGAGTCCCCGCGTACTATCTTCACTCTTT
TTTTTTCAGAAGCCAATGTTCTCTAAATCTGCAGCTTCATTCCACAGCTTTACAGAATCA
TAATCTCTTGAATATATTTCCAATGTTATTAATAAATAAATAATCATACAAGATATATTT
AGCACATTAATACTTAAGAGGTTACAGTATAACTGTCCAGACCTCCAGGTACCTGCCCGG
GC

Sequence 2194

GTGGCGGCCGCCCGCCAGGTACATTTTTAAAGAGTTGTTTTTNGGCCGNGCGCAGTGGCT
CATGCCTGTAATCCAGCACTTNGGGAGGCCGAGGTGGGCGGATCACGAGGTCTGGANTT
TGAGACCATNCTGNCTAACACAGTGAATCCCGTCTCTACTAAAAATACAAAAAATTANCC
AGGCGTGTTGGCTGGCACCTGTAGTCCCAGCTACTTGGGAGGCTGANGCAGGANAATGGC
GTGAACCTGGAAGGAAGAGGTTGCAGTGAGCCAAGATTGCGCCCCTGCACTCCAGCCTGG
GCAACANAGCANGACTCCATCTNANANAAAAAANCAANGAGNNGTTTTCTNA
TGTTCAATTATAGGGCATTACAGTTACATNGNCCGAAGGTCTTACAATAATCACTGGGTA
GCAATANATGCTTCNGGCCACATGATGCTGATTAGTTCNCANTTTTCATNCAGTTGACA
ATATTAACCCCCATTNCTCCCTCCCTGCCCAAGGNTCATAAANTNGTGACTGCCTAACAA
CCAAAATTNGGAAGGCCANTCTTNATTTTCACTCAGACTTCTTGGAACCTGAAAGATTA
AACNTTTTGGCTAACCTGGAAATATCTTTTATCTCACTTATAGCNTTNAAGGCCATTG
NATNAAAACNTGATTTCTTGGAAGGGCCATACCCATAAANTCAAGGGGGGTTTTCTTG
AAAAGTAAANGNTTCCAAATNAANNCCAAACANTTTCAACCCCAAAAAAAAAAAAAA

Sequence 2195

AGGTACACTGAACACCAAGGCTCTCACTCTTGAGTCTAGGGCACCATATATATAAAGGGA
GTTTCGGAACCTGTCAAGGCAATCCTATTGTTCTAGTCAAATCACACTGAAATCCGGAGG
CCTGGTGTGAGAACCTACNAGCGGACACCGGGCATTTAATATTTTTGCACACCCACACA
GCCAGGGCCAAAGTGGTCAAGGCACTCTCCTAACACAGACAGGATCTTCTGAGTTGCAAT
TCTTTCTGAAGGAACATTTTTCACTTGAAATTCATCAGAAAATTTCTGAGATCTTGTG
AGCGCTGAGGTTTCTGGTTTCATCTAGATCCAAAACATGTCCAAATCACATCCTAACTT
CCCAAAGTGTTGACTGAGGAGCCAAAGGGTCTGACTATGCAGTCTGGAAAATACCCCGG
CGGCCATGTCTTCAATAAGAGAACAGGTGAGATATCGGAGCTTAAGTGTTCTCCTCTGTT
AGCTGGAACCTCCTTCAAGAAGAGTGTTCAAGCTTGATCCGTCTATACTTTCTGCATAACA
AAGTAATTCAAAAAGCTGCTTGTTGAACCGTGGCAACTGANTACTTGACCCGTACCTTG
CCCCGGGCGGGCCCTNTAAGAACTAGTGGATCCCCCGG

Sequence 2196

CGCCCGGGCAGGTACAGTGGTCCTTTTAGAGTTGGACTTCTAGACTCACCTGTTCTCAC
TCCCTGTTTTAATTCAACCCAGCCATGCAATGCCAAATAATAGAATTGCTCCCTACCAGC
TGAACAGGGAGGAGTCTGTGCAGTCTGACACTTGTGTTGAACATGGCTAAATACAATGG
GTATCGCTGAGACTAAGTTGTAGAAATTAACAAATGTGCTGCTTGGTTAAATGGCTACA
CTCATCTGACTCATTCTTTATTCTATTTTAGTTGGTTTGATCTTGCTTAAGGTGCGTAG
TCCAATCTTGGTATTACCCTCCTAATAGTCATACTAGTAGTCATACTCCCTGGTGTAGT
GTATTCTCTAAAAGCTTTAAATGTCTGCATGCAGCCAGCCATCAAAAGTGAATGGTCTC
TCTTGGCTGGAATTACCAAACTCAGAGAAAATGTGTCATNAGGAGGAACATCATAACC

TABLE 1

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CCATGGANGGAAAAAAGCCCCCAAATGGGTGGGAACTGGATAATAAGCACTNATGCTTT
AAGAATTGGGCACACTTCTCACCTAAGGTGAGCGCATTGNGNCCAGGGGGTGCTTAAATG
CTTACATACCTCCAAGTGGAAATGGNTAAGGGAAGAAGATTGATNCCAATTTNAAAAAAA
AATTTAAANCCANTTTNAAAAAAA

Sequence 2197

CGCCCGGCAGGTACGCGGGGGTGGAGAGAGGCCTCTAGACTTCAGTTTCAGTTTCCTGGC
TCTGGGCAGCAGCAAGAATTCCTCTGCCCCCATCCTACCATTCACTGTCTTGCCGGCAG
CCAGCTGAGAGCAATGGGAAATGGGAGTCCAGCTGTCCTCGGTGCCTGCTCAGAAGCTG
GGTTGGTTTATCCAGGAATACCTGAAGCCCTACGAAGAATGTCAGACACTGATCGACGAG
ATGGTGAACACCATCTGTGACGTCTGCAGGAACCCGAACAGTTCCCCCTGGTGCAGGGA
GTGGCCATAGGTGGCTCCTATGGACGGAAAACAGTCTTAAGAGGCAACTCCGATGGTACC
T

Sequence 2198

CCGGGCAGGTACCAAAATTGTAAGAAGAAGCTTGGGAAGCTGCCACCTCAGTATGCCCTG
GAGCTCCTGACGGTCTATGCTTGGGAGCGAGGGAGCATGAAAACACATTTCAACACAGCC
CAGGGATTTCCGACGGCTTGGAAATAGTCATAAACTACCAGCAACTCTGCATCTACTGGA
CAAAGTATTATGACTTTAAAAACCCATTATTGAAAAGTACACAGGAGGCAAAGTGTTTC
ACATTATAGACTTCACTTCCAACCTCCTTGGAAATGTTCAATTTCTTTGGCTTACAGGAGAGA
CTAGACAGGAAGGCCAGGCAATGCTTAGGCAACTAAAATGAGGTTGGGGTAAATGCTAAC
GTCACCCCTCACAGGGATGGCCACGGGGACTGTTATTCGCAAGCTGGTTTTCTAGGCCTGT
TAGCTGGAAGCATGGTGAGCACCAATTTCTGGGACGCTCAAGGCCGTGTGCGGGGCTTCAA
GTCATCTTCACCACACCANGTACCTTNGGNCGNNTTCTANNACTANTGGGATNCCCCCGG
GCTGTAGGGAATTTNANTTTNAAGCCTTATTCGATTACCCGTTGANCCTCTGGGGGGGG
GGNC

Sequence 2199

CCGCGGTGGCGGCCCGAGGTACAAGATNGNCATCTCAGTAAAAGGTCTATTATCTAACTN
GCCAAACTTGTTNACTGAGAGCCCTANGGAAGTAAAAGTGGCATAATGCCGTGCACAGCT
TGAAAAGCAATTAGAGTAAGCANGATTAGTTTTCTCCCTTNCAGNCTNAGNAGGCCTG
GCTGAAGGCCANGANGGAAGGAANTNTANNANCCANCANTAAAAATAGCNATATGCAAT
NNNAAGAATGCCATCCCATGGAGCACACCA

Sequence 2200

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCGGGCAGGTACACAATTTTTAGAAT
AGTTGATGTCTTTAAGATGGATATTTACAATTTAGTAAAAAAATACAACATGAAGCT
GCTGCTGTCACAGATCACTGTAGTAAAAAGATATAAATGCAATACCATGTCGTAGAACAA
TATATATATCCTCTGATATTTTACAACTTTGTACTGTGTCCAACAGCTGAAGGAATTTG
AGGGGAAGACTTTAGTGTGAGTCACCAAAGAAGGCCTGGAAGTTCAGAGGATGAAGAAG
AGAAAAAGAAGCAGGAAGAGAAAAAAACAAAGTTTGAGAACCTCTGCAAAATCATGAAAG
ACATATTGGAGAAAAAAGTTGA

Sequence 2201

GCTCCACCGTTTTGGCNCNCCGAGGCCCTTGTCTCTTCTCAGTGACTTAAACAATTC
CAGGATCAGAAGAGAAGCCATTTTGACATCCTCGATAAAAGTGGGGATNNGCTGNANTTC
TGTCTGTTACGAAAGTGTTGAAAAACAATTTGAGATCCAGAAGTCTTGATGGGTTTAC
CATCCAGGTGTTACAAAAAATCAGAGAATCTCTTTCGAGGTGCTGGCCGCCCTTCAACGC
TCTGAGTAAGCATTGCTGGGTGTGAGGAGAGAAAAGCCAAAGAAGCGGTGCCAGACAGC
TCTGTGCAACCTCTAGGCCATGAGTGGGATAGATACCACTGCTGCTTTAAAAAATGGGAG
ACCATAGACCCTCAGGAGAAAAGAATCCCTTCTACCTGGACTCGCTCTCTTCTCTGGAA
CTAATTCTCCCCATACCTGATTGTCTTTGGAGAAAATGTTCTGGATTCTAGAATCTA
AGGCAGAGCCTTTTAAGCCATACTGTACCTGCCCG

Sequence 2202

AGGTACAGACAGGGTTTCTTCATGTTGGTCAGGCTGGACTCGAACTCCTGGTCTCAACTG
CCTCAGCCTCCCAAAGTGCTGGATTATAGGCATGAGATACCGTGCCTGGCCTCCATCACT

[illegible]

[illegible]

TABLE 1
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GAAACGTCACAGGCTGTCTTCCTTTGGATGTAATGGGACGTCCTGATGACCCA

Sequence 2214

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTTTTTTTTNATTAGGGTTGAAAAGGTAAGTCCTATATTANATACATAGGG
GCTGGTAGTCTTATCCTCTNTATAAATACNCACTTTTTGNCAGTCCCCCTTCCCTGCCAT
GCAGAGTCCCCATGGCTGAATCTCCCTATGTCTCCAAGNGNGCGTCACTTGCTGTCTNT
GGGCTGGGTCCCATGNGCTGNGCCACAGTCTT

Sequence 2215

CCGGGCAGGTACAATACTAGAAACCAACATAATGTATTTNTTTAAAACCTGTGTGAAA
AAATAAATGTTCCACCAGTAGGGATAGGGGAAAAGTAACCNAAAGAGAGAANNGGAGAAA
GGGAATGCTGGTTTATCTTTTGANGATTGTAATTCGAATGNGAGAAATTTGCAGTATT
TAGCCACTTATTAAGGGAATTTTTTTTTTTGTAAGANTGGAAGACCTGANACNTCTGTT
CAAAATGGCTTTTANTGGAACCTTGNGTNTTGGAGACCGGTTAGNGAAAAGGCANACA
AAAACCGTGGGTAACCTGGTGGACCTAAAGGGGCNCTGNGTGCCAAGGGNACCTTGGGG
NAAATTGGTCCATTNGATTANTAGGAATGGGTGGGGGTTTTTTTTCCCCCCCCTTTTTNA
GNAAANTGGTNTTNGGATTATTTTAAAGNTGGANTTTTAAAAAACACCNTTTTTTTTTA
AACTCCCGGAAA

Sequence 2216

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTATACATTAAATATTTATTAA
TGTTTTGGGAATGTTGTGTATCAGTAATTATACCTAGTAAAAAGAAAGATCCACATCCAA
ATTTTCCAGAAAACCGGGTGGCCAGGTNNGGNGGAAGAAGAGCATTTTAAAAACCAAAA
CCAAAACAAGGGAAAAGCTAAAAGGAGTTTNTTCAAATANTCCTGAATTCATTAGGAG
GGTTGGAATTNACATTTTTTCAGGNCTNTATTCCCCCAAAGTTGAAATTTTTTAAGGGG
ACCTTGANAAAGNCTTTATTACCCCCATNTGAAAAACAATGCCTGCCAATGGATTTACC
CTNTTTTACCGTTCTTCCAGGGTCCCAANTNACCGNTTGTCTGGTNAATCCCTTT
TGGGCCCTTTTTTTTTT

Sequence 2217

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGAGCTGTGTGCATGCT
GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGAT
GTATGCCAAGCGTGCTTTGTTCACTGGTACGGGAAGGATTCTGCCAGGGTGATTCTGG
GGGTCCGCTGGTATGTGGAGACCACCTCCGAGGCCTTGTGTATGGGGTAACATCCCCTG
TGGATCAAAGGAGAAGCCAGGAGTCTACACCAACGTCTGCAGATACACGAACTGGATCCA
AAAAACCATTCAGGCCAAGTGACCCTGACATGTGACATCTACCTCCCGACCTACCACCCC
ACTGGCTGGTTCCAGGAACGTCTCTACCTAGACCTTGCCTCCCCTCCTCTCCTGCCAG
CTCTGACCCTGATGCTTAATAAACGCAGCNACGTGGAGGGTCTGATTCTCCCTGGGT

Sequence 2218

CCGCGGTGGCGGCCGCCCGGGCAAGGTACTTTTTTTTTTTTTTTTTTTGGGATGGAGT
CTTGCTCTGTTGCCAGGCTGGAGTGCAGGGGCGCAATCTTGGCTCACTGCAACCTCTTC
CTTCCAGGTTACAGCCATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGTGCC
AGCCACCACGCCTGGCTAATTTTTTGTATTTTATAGTAGAGACGGGATTTCACTGTGTTAG
CCAGGATGGTCTCAAACCTCCAGACCTCNTGATCCGNCCACCTTGGCCTCCAAAAGNGCTG
GGGATTACANGGCATGAGCCANTGGGCCCGGCCAAAAAANAANTTTTTTAAAAANGGC
NCCNNGCCCCCTTTTAAAAATTGGGNGNCCCCNNGGGGGNGGGGGGAAATNNAAAAAAA
TTTNTNNCCCCCCCC

Sequence 2219

GGCGGCCGAGGTCGGCCCACTGGGACTGAGATACGGCCCAAGTCTTACGGGAGGCACGC
ATGTAAGGAATTTTCCACAATGAGCGAAAGCTTGATGGAGCGACACAGCGTGACAGGATGA
AGTTCTTCGAATGTAACCTGCTGTTATAAGGGGAAAAAAAAAAAAAAAAAAAAAN
GTACCTGCCCCG

Sequence 2220

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTT

TABLE 1
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TTNTNNTTNTNTTTTTTTTTTTTTCCCGGCCATATTCCATTNTTNNANAACCTGAATTG
CNCTGCCATCCACAAAGGCTNGCNCGGTTTTATCCACATTTAAATCAAACCTGTNGGAGCN
CCAGGACTATTTCAATTATTGCTTTTGTNGGGAACAACCTGATCTAACTGCATAAATCTTTT
TCCTTGACATTACATGAGTNTTGGNGTTTCANCCCTTTTGTCTTTAAGNGGAANAGGC
NAATTTGNGGAAAAANANGGGGGANCCCTTTTNCCTTTTACCCCAAAANTCCNAANGGNA
AAANCCTTNTTTTTTTTTTAAANTTTTTTCCCCNNNTNCCCAAAAAANNGNTTTTTT
TTTTTTTTTTTTTNTTGTGNGGGGGGNGGGGNGGGGNANAAAAANANNCNNNTTTTTTN
NNNNNTNTTTTTTTTTTANAAAAAANNNNNNNNNNNNNNNNNNNNNNGGNGNNNTT
TTTNNNNNANAAAAATNNATNNNNNTTTTTTTTTTTTTTTTTT

Sequence 2221

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTAATCTTTGT
TTTGGCACACTTTTCTGACAAACAGCCAGTGTTCTCAACACATAAATACTAGTCCACGT
TAACAACAATAGCATATGAGACCGCTCTCCGTAAAGATGCCAGATTGGATGCAAATGGAC
TGAAATACCTTGGAGGGTTTCAAAAAATAAGACAAAGGGCAAAGGAACCTTGCCAAAG
GAGATGGAGAGCAATTCTTTAAAGTTAGTGGGAGGGAGGAAGCAAAGAGCTCATAAATAC
AAGCCTNTTAAATGGGACGCATTTGCCTCGCGCTACTGGGTGTCTGCAGCTCAGCTT
GGTGCCCCACACAGGACACCG

Sequence 2222

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGAAGTCTCTACTGAGGAAAGC
TATGAGGATACTCTGTTCTGAAGCTCCCGGTGAATTTGTTCCACAGACTCGGAAGAAAG
GTTGGATAAGAGTTCACTGGAGATTGACAAGTACCTGGAGGAGCCCCTACCCAAGTGCG
CATCTTAACGGCATTGGTGGAAAGCTGGGGTCAGAAAAGAGAAATGACCATTGGAGGGGC
GGGGCCTCCTAGAAGAACCTTCTTAGACAATGGGGGGAGGATGGGACTTTGTTTTTCCA
AGAATAAACTTCAACTCCTGT

Sequence 2223

CGAGGTAATTTCCACCACAGTGTTGAAAGGGAGAGCAAAGTCTTATGGATAAACCTCCT
TTCTTTGGGGACACATGGCTCTCACTTGAGAAGCTCACCTGTGCTGAATGTCCACATGG
TCACTAAACATGTTATCCTTAAACCCCGATGCCTGAGTTGAAAGGGCTCTCTTTATTA
GGTTTTCATGGGAACATGAGGCAGCAAATCTATTGCTAAGACTTTACCAGGCTCAAATCA
TCTGAGGCTGATAGATATTTGACTTGGTAAGACTTAAGTAAGGCTCTGGCTCCAGGGGC
ATAAGCAACATGTTCTTGAATGTGCCATCTGAGAAGGGAGACCCAGGTTATGAAGTTTT
CTTTGAACACATTGGTCTTTTCTCAAAGTTCCTGCTTGTCTAGACTGTTAGCTCTTTGAG
GACAGGGACTATGTCTTATCAATCACTATTATTTTCTGTTACCTAGCATGGGACAAGTA
CCACCTGCTGGGGATCACTCTCTAGGATCACCCCTCCATCCACAATTCATCCACAAGCC
AAGAACAAGCCCCTTCATGTTCTCCAGCAGTGCTCGCTTTTCTAC

Sequence 2224

TCACTNTAGGGCGAATTGGAGCTCCCCGNGGTGGCGGCCGCCCGGGCAGGNACTTTNTT
TTTTTTTTTTTTTNCCTTTTTTTTTTTTTTTTTTTTGGCCTTTTTTAATATCTTTA
TTTGACAAAATAAAAGTCAGCAACCTATCTCGATTTCGAATTTTTTGTGGTGTGAAAT
TCCAATTGANACCCTAAAGCATAGCTCTGGCCTTGGAGAGATTTCAGGAGAGTCANAGCC
CANAAGGGAGCAGGATCCAGGAGGCCCTCATNTCCAGCACTCCAGCTGAGCCAGCCGGG
TTATGGAACATCACTGAGCAATTAATAATTTATCAACAGACAAAAAAGTTTATTGAATA
CAAACCTCAAAGGCATCAACAGTCCTGGGCCCAAGAGATCCATGGCAGGA

Sequence 2225

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGGGCTCTTTCAGGTCCCCCT
TCCTCTGCAGACTCAGCCTCCAGGCTGTTAGCTCTCCAGATAGCTGCCCTGCCACGC
AGGCCAGGAGTCTTCACTCAGGCACCAGGCCTGGTCCAGGAGGAGCTGTGGCACAGTC
GTGGTTCAAGTGTCCACATGCACCTGTTAGTCCCTGAGAGGTGGTGGGAATGGCTGCTTC
ATTCTCGAGGATGCCCGGGGCCACCTGGGCTTGTCTTTCTGTTTAGAGGGAAGTGTA
CATATCTGCCATGAGGAACATAAATCATGTAAAGCCATTTCTCTTAAACAAAAACAAA
CTTTCTAAGTACAATTTGTTACAAATAACGCAGACTTCAAAAAACAAAAAATNACAACCC

TABLE 1

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AAACAAACCAAAATTTAAATGATCAGAATTGGCAAGCACAAAGAAAACGCCCTNTCCTGA
CTTNTATTGTGGGCAGTTCTGAACGCCCCCAGAAAATTTGTGCCAAAGAGTTTTAGAAAA
NTAAATATTCCAATAAAAGTAAACACTATACNCCACCAAAACAGGC

Sequence 2226

GGCGAATTNGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTT
TTTTTTTCTAACTTTATATATAATACTTTATTTTATACAATTCAGTATATCATGTAAAC
ATATTTCACTTTTAATTTTATGATATGTGTGACATATTTTAATTTTATGGATTCAATTA
TACTATCATAATTTTTTAAAGTTTGTATCTTTCATTAATAAGGAGGTTCCCTTATTAATG
GATTTTTTTTCTGTAGCTTNTGAGAACACATTTTATAGATNCCCGGCTTNTAGTTATACC
TGAAGCTCCACAGTGTANACATGTTTTGGCCAACCTTGTTTTATCGGNGTATGAAATTTG
NGCTAATAGGAGGGATCCAATTGTCATTACATTAGAAAACCTAAATGGGAAA

Sequence 2227

CCGGGCAGGTACGCGGGGCCCTTCTAGAGGCAGGCAGAGGGAAGAGAAAGGGTCTGTTGT
TTTTCTCTCCTGTTTCTCGCTCCCTCTCTGCTGATCACAAAGCTGCTGACCGGGTCAGAA
AGTCCTGATGGAAATCCACCAGCGCTGGGCAGGCCCTCCTCCTCCAGGGAGCTTGTCTT
TGCCTAATTTTTCTTCGTCTGATGAGAACAAAAAGAGAGAGAGAAGAAAAGAAAAACC
ACAAACTTCCTTTGAAAACCAGCTTGTAGTCAGGGCCCCGAGCGCATGCCATAGACTCGG
CGACTCAGGAATCCTGAAGACTCTCTGAGCGACCTGGAGCACCTTGGGCTGTGTCCCTGC
CTGCCTTCACTCTCCTCCAGTGCCCCCAGTACTAAGGAATCTTCTGTTTTGGGGTT

Sequence 2228

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGACACAAGACATCATCTTGAAGGAAGG
ATGGCTTTGGCCAGACCAAGACCAAGACTTGGAGACCTGATTGAGATTTCTCGCTTTGGC
TATGCACACTGGGCCATCTACGTGGGAGATGGCTATGTGGTCCATCTGGCTCCGGCAAGT
GAAATTGCTGGAGCTGGTGGGCCAGTGTCTGTCTGCCCTGACCAACAAAGCCATAGTG
AAGAAGGAAGTGTGTGTGGTGGCTGGGGGAGACAACCTACAGGGTCAATAACAAGCAC
GATGACAGATACACACCACTGCCTTCCAACAAAATCGTCAAGCGGGCAGAGGAGTTGGTG
GGGCAGGGAGTTGCCTTATTC

Sequence 2229

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTACTANAAGATATT
GATCCTAGTCAATTAGGCATTGTAGACTGTNATGACCACTTAATAAAAAATNTGGACCT
GANGCTCAGGACATCCAG

Sequence 2230

NTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGNGGTACCTGCAGNNCTNNTACACCT
ACCTCTCTNTGGCTTNTATTTGACCGNGATGATGTGGCTCTGGAAGCGTGAGCCACT
TTTTCCGCGAATTGNNCGAGGAGAAGCCGCAGAGGGCTACGAGCAGTNTCCTGAAGATGC
AAAACCAGCAGTGGC

Sequence 2231

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGTTTCAGAGTTTC
ATAAGACACAGTCTCAACAGGAGTTTTTTAATAAATGCTCTATCTCTAGTTCAGAAAC
TGAATTCGAAGAAGCTACACTGAGGATAATTCAGCTCTGATATTGTGATTACTGTGATGT
TCTTTCATTACATACAGTAAGTATCTGCCAATACGTAACCTACCGAGATCTATTGCTTCT
ACATAATTAGACAAGCTCCTTACACATATGGGCCCATGCCCGGCACATAGCAGGCACTTA
ACAAGGGGTTGCTTAACTACNGGAAGGAATAATATAATTNGCCTTTCCNTTTTTAACTGN
TTTACCCTTTTTCTATACNTTGNATATTTTTGGAACNACATGCTTGCAAAACTAAAAA
TCTAACATGCATTACTAATTTATAAAAGATCCTTCAGTATTTTTCAAAAAGGGAAAAAA
TNATTAAAACCAATCCCCCAAT

Sequence 2232

TACTTAGGGCGAATTGGAGCTCACC GCGGTGGCGGCCGCAGAGCTTAAGAGACCCTTCAG
CTTCTCGGTGTAGGTCAACAGTCATGTCACGCTCACAACCTTTTCGCCTCCCTCTAGGTC
AGGCACCGCATCCAAGTTAAGCAACCGACGCCGGCTCCTTGGTGTCCCAACAAGGTCTAG
TAGAAAAGCAACTTTATAATTGTTTCACAGATTTGATTAAAGAGCCAACCTGAGTAGTGGG

TABLE 1
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CCTTGTGCTAGGGCTCCGAGGGCCCAAGGACCCCATGGAACCAGATTTAGTCGCTGACCT
CTAGGAGCTCACAGGTGAGTGACTCCCCCGCGTACCTCGGCCGCTCTAGAAGTGGTGG
GATCCCCCGGGGCTGCAGGAATTCCGATATCAAGCTTATCGAATACCCGTCGACCTTCGA
GGGGGGGGCCCCGGTACCCAAGCTTTT

Sequence 2233

CCGGGCAGGTACCGNTGTGTCCGGGTGGGTGGTCAGAATGCCGNGCTCCAGGTGTTTACA
GCTGCTTCGTGGAAGACCATGTGCTCCGATGACTGGAAGGGTCACTACGCAAATGTTGCC
TGTGCCAACTGNGTTTCCCAAGCTATGTGAGTTCANATAACCTCANAGTGAGCTCGCTG
GAGGGGCAGTTCGGGGAGGAGTTTGTGTCCATCGATCACCTCTTGCCAGATGACAAAGTG
ACT

Sequence 2234

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATTGGCACGTCA
CGATGTCTTGAGTTTCATTCACTAGGTGGCAGCCTGCATCGTTCCACTGCAAATGACTGA
AATCCCAAAACACACAATGAGGCTGGCTCAGGTTTGACTCTATCTTGAAAAAATAGGA
AAACTTCATTTATGGAATAGTTTGAATAACCGTGGATATCACAGGTCCATTGACCTGAG
CATTTCCATTTTTGGAACGGGTAG

Sequence 2235

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGTCATCACACGTGACAGGATGTCA
ATGACAATCCTCCAGAGTTTACTGCCATGACGTTTTATGGTGAAGTTCCTGAGAACAGGG
TAGACATCATAGTAGCTAATCTAACTGCGACCGATAAGGATCAACCCATACACCAGCCT
GGAACGCAGTGACCT

Sequence 2236

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAATATGAACCT
GTGCTTTGCAGCAGGCCAACTTGTAAGCTGTTCTCAACCCACTTTGTCAGGTTGATTAT
CGAGCAAACTTTGGGCCTGTAATTTTCTGTTTTCAAAGAAATCAGTTTCTCCAGCTTA
TGGAGGCATATCTGAGGTGAATCAACCTGCCGAATTGATGCCCCAGTTTTCTACAATTGA
GTACGCGGNGACAGCGGNTTCCTTGATCCTTGCCACCCGCG

Sequence 2237

GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACNCNGGGCCCTGTGCTG
TCTGCACCGAGGAGAGCGGCCTGNCGGAAGNGGGCCACCATATCTGGAACTACAGTCTA
TGNTTNGAAGCGCANAAGGGAATAAACANTTAANGACTCCCCNNGGACCTGNAGGATGG
NCTTTTCCATGGGGGCCGAGCNGCAGCTTACAATGNAAAATNACANACTGGNGCTNTTG
GAGAAAATATANTTGGCATAATTCCCATTAACACNATGACTTCAAAATTTTAA

Sequence 2238

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTCCTGA
AATGGCTTCTGCAGAGATGGACCTATGCCGGGGACAGCACACCTGGACTCAAAAGGCAGG
GATTGGATAGGAAGAGGAATAAAATATAAAATCAGAGAAGTCTGAAATTCTGTGACCC
CTTTTGTAGTAAAAAANGAAATAAAAGTACCT

Sequence 2239

GGTACATTTTTAAAGAGGTTGTTTTTGGCCGGGCGCAGTGGCTCATGCCTGTAATCCCA
GCACTTTGGGAGGCCGAGGTGGGCGGATCACGAGGTCTGGAGTTTGAGACCATCCTGGCT
AACACAGTGAAATCCCGTCTCTACTAAAAATACAAAAAATTAGCCAGGCGTGGTGGCTGG
CACCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCGTGAACCTGGAAGGA
AGAGGTTGCAGTGAGCCAAGATTGCGCCCCTGCACTCCAGCCTGGGCAACAGAGCAAGAC
TCCATCCCAAAAAAANTTNAAAAAANNNGGTACCTTGCCCGGGGCGGCCGCTC
TANAACTAAGGNGGGGATCCCCCGGGCTTGNAAGGAATTCNATATTCAAAGCTTTA
TTCGAATNCCGTTTCGACCTTCGAGGGGGGGGGG

Sequence 2240

CGGTGGCGGCCGCCGGGCAGGTACNTGGGGAAGGCGCNCNCGTGCCTCAGCTTGACAGCA
GAAGCAGGAGGAGAGCTGGCGGGAAGACATGCACCCCTTGAAGACCCAGAGAGAGGCCGT
CTGTCTACCGCGTAGCAGTTACATCAGACTGAGACACTTCTGTTTACAGGAGACTATAA

TABLE 1
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AATTCCTGCCCCGTGCTCATTGTTGGGGCTGACGCCATTTTAGACCTCAGCCCATCTGCACC
CAGGCGCTCACTGAAACAGTGTGTTGCTCCACACCGCCTTGTGTTGCTTGNTGGCGCGCT
CTCAGGGTCCGACCAATCCAAGAGCCTTGCAGAAAGCATTAACTGCTTTTNTCTTTGG
CAAGAGTTTTTCTTTGCTCTGATCTTGGAGACCATCCCTCTGCCTAGGGGGAAAAACATAN
GGGAATACAGA

Sequence 2241

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACACCATGTTAAGA
GATAGCAATGCAACCGCAGCCAAGATGTCTTTAGATGTAATGATTGAACTCTACAGAAGG
AACATCTGGAATGATGCAAAAACTGTCAATGTTATCACAACCTGCATGTTTCTCTAAGGTC
ACCAAGATATTAGTTGCCGCTTTGACATTCCTTCTTGGGAAAGATGAAGATGAAAAACAG
GACAGTGACTCCGAATCTGAGGATGATGGACCAACAGCAAGAGACCTGCTAGTACCCTCT
CTTCCAGCACCCAGGCCAGTATTGAGATCGATTCTCTCTATGAAGGAATCGACTTCTATA
CCTCCATTACCCGTGCCCCGATTTGAAGAACTGAATGCTGACCTGTTTCCGTGGCACCCCTG
GACCCAGTAGA

Sequence 2242

TAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAGTGGCGTGGGCC
TGCTTTCCCGCCAGTGCCCACTCAAAGTTTCTTACGGCATAGCCGATGAGGAGCATGAT
CAGGAAGGCCGGGTGATTGTGGCTGAATTTGACTCGTTTGTGCTGGTAACAGCATATGTA
CCCTTGTCTCTTCTTCACTGACTTAAAACAATTCCAGGATCAGAAGAGAAGCCAACGTG
ACATCCTCGATAAACTGGGGATAAGCTGAAGTTCTGTCTGTTACCGAAGTGGTTGAAA
AACAATTTGAGATCCAGAAGTCCCTTGATGGGTTCAACATCAGGTGTTCAAAAAA

Sequence 2243

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGNCAGGTACCTTCACCTG
CTTTGGAGAAATCCTGAATGTGTCCCAGAAATGAGACGAGAAGTCTTCTCCTGATCAAA
GGTCTTTTCTTGATTGAAGGGTTCTGTGGTTTACAGGCTTCAAGGAAAGAGCCATGGAC
CTCAGTGGTGAGTGTTACAGNTCCATTAGAGAAACATGCAGACCCCCCGGTACCTN

Sequence 2244

GCCGCCGGGCAGGTACTTTCCCTTCCCTAGAAAAGCNGACTNGNCGCTAACGGTGAAGG
ACCANGCAGGCGTCCCTGAGTGGTCTGACACCTTTGAAACGTGAGTGAATAATCAGAGA
GGTGTCCTGNAATGATAAACACCAAGGAAAGGCTGCCTTCCAGTCTGNGACCAAGCGC
CAGAGTTTTGGGTCCACGGATAAAACGTGCTCGTTTGTCTCTACCAGAAAATGAANGGA
ATTTGAAATTAAGAGAAGGGAGAGATTAAGAAAAAGAAAAAGTACCTCG
GCCG

Sequence 2245

AGGTACGCTTCGACCCACGCGTCCGAGAAAAGACTATTAATTATTTGTGCCTTTAAAGGT
TAATTATTTCAACCTTAAAGAAATCTTATAAGAACCCATTAATAAAAAAGAATGCAAATA
TATTGCCCAAAAAAATACACAAATTATTGTCTTTATATAGGGGAGGAAATAAATATGTT
TCATCTGAATTGTCTGAAGTAAGTCATGAATGGAGTCAGGGTAAAAAAAAAAAAAAAAAA
AGTGCGGCCACCTGCCCG

Sequence 2246

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGCGAATACTGCATACTGTTTAAGGTAGTA
TATAAGTTTATGAGAGAAGTGGAGAGCTTTCTTCTTGAAAAGTCGGTATTTGTTGAGAT
ACCATTTGCCTCACAGAGAGGTGTTCCCACTCCCATCCCATGCCAGATAATAAATAT
TTTGAGAAAAGTGACCTAAAACAGCTGAAATCTTAGGTGCATCTGTCTGCAGACCTCCTT
AAGCAGGCTGTATCTTACAATTCCCTTACTGCACTGGGTAAGTGTTAACTTAGTTTTTGT
TGTTTGCTCTTTGCTTTAAATATTCTCCAAATTACACCT

Sequence 2247

AGGTGTACAAGCTTCNACCCACGCGTCCGAAAGATTCTTGNTGAGCATGGTGGCTCATG
TCTGTCACTCANCAATTTGGGAGGCAAGGGCAGGAGGATAGTTTGAGCCCATGAGTTTG
AGACCAGCCTGGACAACATAGTGAGACCCCATCTCAGCAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAGTGCGGCCGGCCGCACTTTTTTTTTTTTTTTTTTGTCAATANAAGTNTGG

TABLE 1
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ATCTATGNGTAGACAATAATTAGTAAGGTCAAATTTTTACAAACTCCTCCTTCAGCTGC
TAGCAAGTAATCAAGAGCTAGTCTATTTTGATAGATAGCATTCTCATCAGAGTCTCTTG
CCAGGCAAGAACAGTCAAGGCTTGAGTGGTNTNNTTANTGNCTGCATTCTAAACTGCTT
GGCNCATATGACANNGCCGANCATGTAGATGGGGGTTGATATCCCCATGAGACATCTT
GTGCCCAAGTGGCAGGTCCATAGTATTGTAAGATTTTTTCAGGGGGCCATTTCATCGTCTT
TCCAATCACCTATGGCTATGCTTCATTTTTACAGGAAGCACAGACTGGGAAGCCCAGAA
GTTTACCTGTTTTATGGNCCCCTAAAAAANANGGTTTCNATGGGTGCCAAATTTAC
ACAGNTTACCTGGCCCACTTGATTNAGGGAANNTTTTNANNCATTAAGNNCCGAANCCCN
NNGGGNATCAAAAAGNTTGGCCCTGGCCCGNNNGGGCCCGGCCCNCC

Sequence 2255

ACCTGCCCGGGTGGCCGCTCGAGGCCGCCCGGGCAGGTTTTATTTAACATTCAAACCTTCA
TTAAGACATGTGCAATATGGCAATTTTACTGGGGATTAAACCCCTACCTAGGATTGCTTGC
TGGGGCTTAGCAACAGGGTCCAGTTCACACTTAGCACTAATTAATACTTTATTGAATAA
ATACAATACCAAAACAAAATGCATTCAAATGCCGACGCGTGGGTGCACTCAAGCTAGGTG
GGACGCGTACCT

Sequence 2256

ACTTTTTTTTTTTTTTTTTTAAAAATTCAAAAATTAGTTTATTAGCTTAATATAA
TTAGGTCAATGGAATCCTGTTTGATCTCAATACTTCCCATATTGCAATATATAAATGTG
ACAAATTCAGCTGTTTTGCGGCATAGATAAGTGTCTAAGCTGGGCAGTTAGTCTACCCGT
TTATAGTTCATGTTCTTCATGGCTTTCAGCATTTGTCACTTTCTATGATGTGTTCAAAG
ACCAGAAAAGGCCACACTTGACCTGTCAGCTGGTCCTTGAACAGCTGTAGGTTTTTTTTT
TTTTGAGACAGAGTCTCCCTNTGTTGNCCAGGCTGGAGTGCANTANCGCAACCTCGACTN
ACTGNAACCTCTGCCTCCAGGTTCAAGNGATTCTNCTCCTCANACTCCTGAGTAGCTGGG
ATTACAGGCCCATGCCACCATGCCCGGCTGATTTTTATTTTTAGTAGAGATGGGGNTT
CACCATGTTGGCCAGGCTGGTNTTGAACCCCTCGGCCGNTTCTANAACTAGTGGGATC
CCCCCGGGCTTGCAAGGGAAATTTCCNATTNTTCAAAGCNTTAATCGGATACCCCGTCC
AACCNNTNANGGGGGGGGGGCCCGGGANCCCCCAGCTTTTTGGT

Sequence 2257

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGCGCAGGACCTCAGATTAATAATAT
TGCTGAGGTGAGACGCCACAATTTTCATGACTTCTTCAGAAGTAGCACATTTTCGTGAC
TTCCGCTGTCCTCTGAAAAACAAAGTTATTTGGAACATGTTTCATGCAAAAGTGATTCTGA
CCAAGTCTAAATCGAGCTTTTCTACTGACATGAACTGNTGGAAAAGTATCTTATTTTA
TAAGAAAGTGTTTTCCCTNAGGGGGGGNNGTGTGNTTTCNGAACANCCCNCTNATTATT
TTTTCCCCCGGNNCCNTATAAAATATTGGGGTCCCCCCCCNNCGGGGGGGNNGGGGNAT
TTTAAAAATTNTTTTTNTCCCCCCCCCNCTGGGGGG

Sequence 2258

GGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTGTACAAAGCTTCGACCCACGCGTCC
GAGCAGAACTTGGCAGCAACAGAGGAAGGGCCCTGGAGCCGGCTGTCGTGGATGCCTTT
AATCAAGCCTGGCATTGTTGCTCACGAATGTCCCAACTACTTCGCTAGGCCCATCAT
GGCTCAGGCTGCCAAGGCTTTTCTGTACCTNTTTTGTCTCTCACACTGACCAAGTCT
TACCTGCCCG

Sequence 2259

CGAATTGGAGCTCNC CGCGGTGGCGGCCCGCCGGGCAGGTCTTCGACCCACGCGTCCGTA
GTAATAGGAATTAAGTACCCCTTTNGGATGGGGGAGAGCATCAGGCTGGGGTCAGGTAA
GTGTAATGGCCTTCTGAGCATGCTCTTAGGCTGACTCC

Sequence 2260

CCCCGCGGTGGCGGCCCGCCGGGCAGGTACAATTAGTTATCAATTCATGGGCTATGGCCA
CTGGTTTGCTGGATGGTCAGGGAAGTGGGAAGGAACATGACTGGAAAATTGGTGACAAAAC
GGTCTGTGGAAGAGGTATATACACAGATCTTTCTGAATGGGTGAAAAATGTGAGGATATT
TGTGTCTCATATGAATGCCCCAAAGAATGACTTCAGCAGAAGAGGATTTTAATAACCAA
GTAGATAGGATGACCTGTTAGCCCCCTTCTCCAACCATGCAGGTAAGTACCAATGAGC

TABLE 1

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TCATGAATAAAGTGGCCATGGTGGCAGGGGTTGTTCTGGACGCCGTGGTT

Sequence 2261

TGGCGAATTGGACTCCCCGCTGTGGCGGGGNGNCGNCGNCNAGTAAGACTTCGTCTCA
 AAAAAAACAAAAACAAAAACAAAAACAAAGAAGTTAGCCTGGTTGGGCATGGTGGCTCAT
 ATCTGTAATCCTAGCACTTTGGGAGGCCCACTGGGGATCATTTGAGGCCAAGAAATTTTG
 AGACCGAAGCCTGGGCAACGTTAGTTGAACCCTCATCTNTTACCCAAAAAAAAAAAAAAAA
 AAAAAAAAAAGTTGCCGNGCCCGCTTCTTANTAATAAGTTGGATTCCCCCGGGGCCT
 GGCAGGGGAAAATTTGAATATTCAAAGGCTTTATTCTGAATACCCGTTTCNGACCCTTC
 GNAGGGGGGGGGG

Sequence 2262

AGGTGGAGCTTGATTTCATAACCAACCAACCCAGGCTGTCATGCTAAAAAAGGGCAGAAT
CTTTGCTGCTGAACACTNGCATAGGGTTGACTACCATTGNTCCTTTAGTNTTAGTTTGG
GCTAGCAAAAAGGTGNGTCCCTTTGCCATGTAATAAAAAGCCNTNTCNNGGTAATNAAAAA
GGTNTNTNTTTTAACTT

Sequence 2263

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCCAAAGTGCTGGAATCACAGGAAT
GAGCCACCACACCAGCCAAATTGGGCACAAATTTAAAATTTGACTTTTATTAATGATAT
GGTAAAGAGATCTAGCTTGGTCATGACACCCTTGTTATACGGTGACAGGCAAATCATT
TAAAAATATCTAAACTATAATTTNCTGTAGTTCAGATGAATTGGATATTCTTGAAGCGGA
CGCGTG

Sequence 2264

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTTTTTGGGGGGAGAGACACAG
ATTTTACACTAATATATGGACCTAGCTTGAGGCAATTTTAATCCCCTGCACTAGGCAGG
TAATAATAAGGTTGAGTTTTCAAAAAAAAAAAAAAAAAAAGTGCGGCCACCTGCC
CGGGCGGCCGCGCCGCGGCGAGGTNTCGGGCCCCGAGAAGACCTCCTTTTTT

Sequence 2265

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGCGTCCGAGCTAACGAATGCTNGACT
AACTAGATNCCAAAGCTTGCTCTGTGAAAATTCCCGNATAACCNNTGAAGTGGGCGACAC
CNTAACCCCTGCACACCTTACTCCTGGTNTCAGAGAGCCCAGTNTGAACATAAACTGNGTA
GAGGTGTTAGACTCANCCTACCCTAGTAANGCCCAACCTCCGAGACCAACCTTAAACATC
AGTAGACTCGGAGCTGTATGTGGATAGGAGCAGTTTNGNCAACCCCTGCNAAAGTGACTCT
GAAAAGAGAC

Sequence 2266

CCGGGCAGGTCTTGAGTCGACCCACGCGTCCGCCTAGCAAAGCTGTTTCCACTGAATGCA
TCTAAGCANNATGGANCTATGCCAAAACCACCACAGGNGTTTCACTTNAATGATACCNC
GAAACAAGG

Sequence 2267

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATATGCTACAGGGAAGA
AAACGTTCCAAAAACAAGAAAAAGTTGAAAAGGCAATGAAAGTGCTCAAGAAACAGAAA
AAAAAAAAAAAAAAAAAAGTGCGGCCGCGCCGCACTTTTTTTTTTTTTTTTTTTTCAATN
TTATTTATCAAATAAATTTATTAAGTTTTCAAAGACCNCTTTAAAGTGTA NCTGCCT
TNAANACAGATTTTGGNACTCNTAACGGACACTGCAGTTTTNAACNCCATAGCACTCAT
TNTATTTACACATCATTTTTAAG

Sequence 2268

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAGGTATGTAATCCAGG
AAGTGACCAGCCTGATGCGTGTATGACTCACTGNAAGCCTCCCATGATTAAGGAC

Sequence 2269

[illegible]

TABLE 1
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TTTTATACTTTGGTTTAAACAGGGGAGAGGGGGAGTNTAGTTGAAACAATNTTACAGAAG
TAAAGTAGGCAAAAAGTTAAAAGGATAAACGGTTACAGGAAAGTAAACAGTTCAGGNGC
AGAGGCTTTAAGTNTATCCTAAGGNGATGGACCCCGGGCTTTGGGC

Sequence 2270

AATTGGAGCTCCCCGCGGTGGCGGNGCAGAGTCAAGCTTCGACCCACGCGTCCGGTTTGT
TTTTCTTACGGCAACTCAAAGCAAAGAGCTGGAGGAGCCAGNCATTATAATTGCTTACT
CTCATCGCTTAGCGCCCCAGGTGGGATGTGTTTCCAAAACACATTTTGTNTTTATAAGG
AAATGTAGTTAGGATTAATTTTATTGTCCTAATTAGAAGTACATTTTGGTTAAATCCTC
AATTTCAATAAAAAAAAAAAAAAAAAAANGGN

Sequence 2271

CNCTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCTTGAGTC
GACCCACGCGTCCGGTGATATGTCACAATGCCGTGTAGCCAGAGCCTAGACAAAAGTTAC
AGCACCTGGGAGATCAGTGCAGAGATATGTCACAATGTCCCCAGTAGGCAGAGACCAGGC
AACAGTTGGATCACCTCGGGATCAGTGCAGAGACATGTCTCAATCCCCTGTGGGCACAG
CCTAGACAAGAGTTAAATCACCTCGGTTAACAGTGCAGAGATATGTCAATATTCCCCTGT
AGGCCGAGCCTACACAAGTGTTACATCACTAAGGTGATCAACGCATAGATATGTCAAAAT
ATTGCCGTGAAAGCAGAGTCTAGACAAGAGTTACATCACCTGGGCGATCAGTGCAGAGGT
ATGTGACAAGGCCCTTTAAGCAGAGCCTAGACAATAGTTACATCACCTGAGTGATCAGT
GCAGAGGTCTGTCACAATGCCCTTTAGGCAAGAGCTTAAACACCTCGGC

Sequence 2272

AGGTACTTGACCCACAGCCATCTGGGATGAGCCGCTTTTCAGCCACCATGTCTTCAAAT
TCATCAGCATNGAACNNGGTGAAGCCCCACTTNTTTGAGATGNTGGATCTTCTGGCCGGC
CAAGGAACTTGAACCTTGGCCCTGCNGCAGGGCCTCAATCACATTGCTCCTTTGTTTCTT
GCAAGCTTTTGGGTTGCCGGGATTGGGGACATNGATAAACTTGGGCCAAATTGTGAAACC
CTGGGCCACAAGTGCCCTGGGGGNGCCTTTCCAAAAGGGCCACCCTCCGCCATGCNCTG
TTNTGGGAAGNCCTTGTTCAAGCCCCCAANCNACAGGGGAACCAAAACCAATTCTNTNGT
TTGGAATGGCCGGGAATTGAACCGTGGNAAAGGGGGGTTGGGGAAGCCCCGCCACCCCC
NGGNATAATGGGGAAAGCCAATCTTTGCCAACAACTTTTTTAACCAATGTTACCCTT
GCCCGGGGCCGGGTCCGCTTCTAAGAAACCTAGGTGGGGGATCCCCCGGGGGCCTGGC
GAGGGGAATTTTGAATTATTCNAAAGCTTTAATTCTGAATACCCGTCCGGACCCTANG
AGGGGG

Sequence 2273

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTAGCTTGAGTCGACCCACGC
GTCCGAAA
AAAAAAAAAAAAAAAAAAGGGGNGGCCGCCGCCGGCGGGTCCCNTCANANANAAGG
GGGNGGGNGCTAATCCAGTACCAAACNTTC

Sequence 2274

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCATTTCTACTGT
AGAGGAAAATATATGACAATTATCACTGTCAGTGCCTGACATACAAAATGGAACAGAAC
AGTGGGGTAATGAAGGGAGGGGAGGGAAAGGGAAGAGCAGGAGAGAGAGGAGTTGGAGGA
GAGGGGAACAAAGGGGAAAAGGGTCTATTAACAGAGGCCTAGAGAAGCTAAAATTTGGA
AATGGCAAATCTGAGAAGAGCCTGAATAAAAAGTGGGGGTGAGGCCATGCACAGTGGCTC
ACGCCTATAATCTCAGCACTTTGGGAGGCCGAGGCAGGTGGATCACCTGAGATCAGGAGT
TCGAGACCAGCCTGGCCAACATGGCAAAACACCT

Sequence 2275

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCG
TCCGAAAAATGGGAGACAATTTACATGGACTTTGGAAAAATTTTTTCTTTGCATTCT
ATCTCTCAAACCTTAGTTTTTATCTTTGACCAACCGAACATGACCAAAAACCAAAAGTGCA
TTCAACCTTACCAAAAAAAAAAAAAAAAAAAGACCTGCCCCG

Sequence 2276

CCGCGGTGGCGGCCGCCGCCGGGCAGGTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGACTAG

TABLE 1

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AGGGATGAACCACCATGCCAGGTAATTTTTTAATTTTTAGTAAAGGTCGGGTCTCACTA
TCTTCCCTGCTCAGCTGGTCTGGAACCTCTGGGTTCAAGTGATCTTCCCACCTCAGCCT
CCCAAAGTGCTGGGATTAAGAAGTAACTACCACACTCAGCCACACATAGGTAATTTAA
AATATTTCCATAGTCACAATTAACACATATAAATAGGTAAAATTAATAACATTTTAT
TTAACCCAATATATTAATAATTTTCCACTTTAAAAAGAGACCTCGGCCGCTCTAGAACTA
GTGGGATCCCCCGGGCTGCAGGGAATTCGATATCAAAGCT

Sequence 2277

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTATTGACCCACGCGTCCGTAG
TTTTTATCTTTGACCAACCGAACATGACCAAAAACCAAAGTGCAATCAACCTTACCAAA
AAAAAAAAAAAAAAAAAANGT

Sequence 2278

GNACCCAGTAATCACATAAAGGTNTGCAGGTCATGNTGTTTTATTAGCTTAAGTGT
TTTTTATTTGTTGAAGGGGTNGGTGTTATTTTCAGNCTTTTTCTTATTGGGTTGACCAGA
CTTGGTAAAATCTGTAAGAAAGTTCCATAAATTATTGGGGGGAAGGNATTTCTCTGAA
ATTGGGCTAAAATCTTGTAGCTGAAAAAAAAAANAACAAAAACAATAAAATANGGN
GGCCGGGCGCGCTTCTAAGAAAAGTGGNGGGGGATCCCCGGGGGCGCTGCAGGGGAATT
CCGNATATCAAAGCCTTATCGGATTACCCGNCGNACCTCGGAAGGGGGGGGGGGGGCCCC
GGGTACCCAAGCTTTTTGGTTTTCCCTTTAAGTGGAAGGGGGTTAAATTTGCCGCCGT
TGGGGCCGTAAATCAATGGGTGATAAGGCTGGTNTTCCCTGGTGGNNGAAAAATTTGGT
TAATCCCGCTTCAACAAATTTCCACCACCAACCANTACCGAAGCCCGGGGAAGCCATAA
AAAGGTGGTNAAAAGCCCTGGG

Sequence 2279

NGGNGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAAAAAAAAAAA
ACAAAAAAAACCACTTCACTAATTCATCTGACAATGCTGTTTATTCATGACGCCAT
TTTTTGTGTTGTTGTTGTTGTTTCTAATAATAAGAAGGAGACTTAGGGCTGTTG
GGCTGATATATGTTTGGGGTCCACCTCCCCGCCTCATCCGTACCTCGGCCGACCAGTG
CAAATATCTACCCAGTTAGAAGAGTAAATACCATCTTAGTGTTATTATCAAAATATTNTG
AACTCATGAACCTCCTCAGACTGTTGCTGGGGACTCCCAGATATCAATACTCTGAGAACC
ACTGATCTAATGTTTCTTTAGTCAGTTTCTATTGTTCTCTAGTATAACCAAGCATAAAA
GTAAT

Sequence 2280

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCTCAG
GGCACAAGTGATCATTTGGGATCCTAAGTTAAAAAGGAAATGCAAGAGTAGGATACTCC
AATCCAGAGTCTTTGCAGGAGGCTAATCCACAAGAAGGGTAGCATCAGAGAAAGTGGC
ATTGGTCTTAGTGGTGGATCATCAGGTAGACAAGTGATAGTGTGTGAACCCATCTGAAA
TTCATTTTACCGTCACCACTCTTACAAAGGACAGTTTATTCCCAAGGACAGTGCTGACGG
GGAGGGGGACAGGCAGGGAGTTAGGAGGGTTTTTCGAGGATTTCAAACAGGTGGAACCCAT
CCATCCCTATTCCCAAGGGCCACTTACAACCTCTAAGGGGTGGTTACAGGATTAACCTACCA
GTTCATTTTCAAATGCTGCTTGAACCTCAGAGGGTTGATACTTTTAATTTGTAATTTT
TGTAACCTTTTTACAAAATAGT

Sequence 2281

CCGGGCAGGTTACAAGCTTCGACCCACGCGTCCGGTCATTATTACCCTCACTGTCAACCC
AACACAGGCATGCTCATAAGGAAAGGTTAAAAAAAAAAAAAAAAAAGTGCGGCCTCG
AGCGGCCGCCCGGGCAGGTACAAAAAACCTTACATAAATTAAGAATGAATACATTTAC
AGGCGTAAATGCAAACCGCTTCCAACCTCAAAGCAAGTAACAGCCCACGGTGTTCTGGCCA
AAGACATCAGCTAAGAAAGGAACTGGGTCTACGGCTTGGACTTTCAACCCTGACAGA
CCCGCAAGACAAACAACTGGTCTTGCCAGCCTCTAGAGAAATCCAGAACACTCAGCC
CTGACACGTTAATAC

Sequence 2282

GCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTCAAGCTTCTACCCACAGCGTCCGTTT
ATGTTCAAGCAATAAAGGTTCTATCCGTAAAAAAAAAAAAAAAAAAGNGCGGCCGGCCG

TABLE 1
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CCGGGCAGGTACTATGACTAGACACATGATGCATGGCTAAAAAGCTCTTCTGGATAACTC
CTTAGNGAAGGNCTAACNNCCCCACCACCATCAACCTACAGCCCTGCCTTTTTTTTTTTT
TTAANAAGTCTGTCAACCAATNTTGTCTGGNGCTNGATTTCAAATAATACATTTNTAGA
ACCTGCCCCGGGCACACGCCNATAACGANTGGTTTTNNNTTATATCAATTAACGTTAAA

Sequence 2283

CCGCGGTGGCGGCCGAGGTACTCCAGCCTGGGCGACAGAGCAAGGCTCAGTCTCAAAAAA
AAAAAAAAAAAAAGGAGAGGAATAGTAAATTTATAGTGGAGAAATCTGCAGTCACTAAC
TTAACCAAATAACCATGATGTATCCCTTATTAAGGTAATCGAAAGGGCACAGCGTT
ACTTCTGTGGAATCTTGCCAAAATGCATAATCTCAATCAAATCATAAGAAAACATCAA
AATTGAGAGGCATTCTACAAAACCAATAATTAACCAATATTCATCAAAGTGTCAAGGTC
ATAAAGACAAGATGTTTATAGAAATACATTAATTTTGGTTTCTACTTAAATTTTATTTT
TTAAATAATTGTTTATAGAGATGTGGCCTTGTTAGTTGGCCA

Sequence 2284

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGGGATTTTTTTTTTTGTTTT
TTCTTTTTTTTTGGTTTGTTTTAAATCAGTGCATAAATTTTCTTTCTCATTTCAGCA
GATGGACAAACAGATGGACTCTACAGCTAAGTGGAAATATCAAAGGTAGAGGGGTGATTCT
GTGAGACTGATAGGCCTGACTATTCTCAATTCTCCCCACTGCAGTGTTACGCGGACGCG
TGGGTGGAANACCTGCCCC

Sequence 2285

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTGCGCTCGTAACAGTG
TAACATGTATTATGGTAACTTCTAATCTTGTGGCCTTAGACAGTCTAGTCCAAAGGCATA
AAGAAAGTNTGCTTTAAAAAAGGAATGTTATCTTCAAAAAAAAAAAAAAAAAA
AAAAAAGT

Sequence 2286

TAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGAGGTACGACTCATATAGGGATCTAGA
TCACGAGCGGNCGGCCGCGCGGGCAGGTCTCCCATCTTGCGCAAGTTGGTCACGTGGTCA
CCCAATCTTTGATGGCTTTCACCTGCTCATTAGGTAATGTGTCTCAATGAAGTCACCG
GACGCGTGGGTGGAAGACCT

Sequence 2287

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGTTAAAGGAATAATCTGCAGAACATCTTGAT
TTACAAGGGACAAAATGATGCAAAATTATGCTGTCCAACCTACTGGTGAAGTGGATCAG
AATGGTCCAAGGACTGTTAAACAGAGGAAGTATTACATTTTGAAAAGTGGCGACGCGT
GGGTGGAAGCTTGACACCT

Sequence 2288

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGCTGGTACATAAANAATTTN
TTNGTCTTTAAATNGATACNAATGTCTATCANCTTTAATCAAGTTGTAAGTATATTGAA
GACANTTNGATACATAATAAAAAATTATGACAATGTCCTGGAAAAAAAAAAAAAAAAAGT
GCGGCCGACCT

Sequence 2289

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACCATACTTGTCATTG
CGTAGACTTCTTATCAAAATTTACATTNATCTGTAGGAAAATGTAAAGTTGGTAAAAAT
TGTTTACACAAATCACACATTTTCCATCCTTGACAATTGCAGNGTTTTTTTTTAAATATT
GCTGTATTAAGACAATTTAACTGAAGTAGGTTGTAGAGGCTANAAACCTGATTAATAGA
GCAGTATTAGACAATCTAACTGAAGTAGGTTGCAGAGGCTAGAAGAAACCTGATTAATA
CGGACGCGTGACCT

Sequence 2290

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAAGCTTCGACCCACGCGTGCG
AGTCAGGGAAGGTTTGTATGTTACATTTATTTACCAGAACTATTTTAAATATATCAA
GGGGTTTACTATGCCAAACAAATTTCTAGGGAATACTGCTAAAAATGGATGCCTCAT
CAGAACATGCTGTTGAGTCCAATGTGCCATAAGACATTTTAGCATGTTAAATAGCACTTT
TAATAGCAAAAAAGGCACATCAACTGCGAAGTTATCCTTAGTTTGCAATGCTTTTTCT

TABLE 1

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AGATTAATGATTTTTCAATCATTAGGGTACCTGCCCCG

Sequence 2291

CGCTACCTGCCCGGGCGGCGCGGCACATTTTTTTTTTTTTTTTTTCAAGTTTTATGA
TTTTTTAACTTGTGGAACAAAAATCGGACGCGTGGGTGCGACGCGTGGGTGGAAGCTAC
CT

Sequence 2292

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGCTACCTCCAAGCAGGATGATGGG
CTAGACATGGAGCATACATAAACGGGCAAGATTCAGTCCCTGACCGCAAGGCACTTACAG
TCTAGTTGGGAAGGGAGACACAAATGTACCT

Sequence 2293

CCGCGGTGGCGGCGCGCGGCGGCGAGGTACCAGAGACTCCAGGAAAAATCAAAAATTTGTTT
TTGCAATTAGCCGAGCAGCTAGCCCAGTCTCTAAATGTCACTTCATATTATGTTTGTA
ACAATGTAATAAGAGATCAATGGCCATAAGAAGCCTGAGAATTAGTGCCTACAGACCCA
GTTCTGATGAATTCTCAGCCCAAAGAATCACCTGATCATTTCTAGGTTCTAAAAGTT
TCAATTATTGGACAATATTGCATAGCTAGAAAAAAAAAAAAAAAAAAGTGCGGCCTCGA
GCGGCCGCGCGGCGGCGAGGTACTTTGAGCAGGATAATAACATAAATTTCAATTAAGTTG
TATTTATAGCCCCAGTAACCGGAAAGAATTATAAGTAATTATGGAAGTATTATATTCTGA
CCATACCAAGAGTTAAAAACAAAGAGTTCCTACTAAAGAGGAATATTTTCAAGATGATCT
GGTCCATCATGTGCATAGTTAAAGAATGGTTGGTTTAATAAAGATTCTTTTGCAAAATAA
GAAT

Sequence 2294

AGGTACAAGCTTCGACCCACGCGTCCGATGAACAACTGGCTGCTCTGTCCCAGGGTCCAA
TATCAAGCCCAAGAGGAAAAGAGAGAAAAAAAAAAAAAAAAAAAAAGTGCGGCCGG
CCGCCCCGGGCAGGTACAGATAAATATAGGAACTACTTCAGATTATTGGACAAATAAGAA
TTTCAGTGTGTCACTACCTATAATTAAGTAGCAGCACACCACAACCACAGCAAGTAAACA
CTAATCTCCTCTACTGCCTTTTTGGGGTCTTTTCCAGTCACAGGAGCTAATTTACAGGGA
TACCACTGGGTTTCAACCAATCTCTGAAAGTTCCTTTATTATGAGTTTTGAAATTTAACT
AGTGCATCACCTACAATTCTGTTGGCTAGTTTTTTCTTACTCTTCACTAATTAAGTTTT
AATACAATATGTAATGGTTTTCAAAATTTT

Sequence 2295

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGGAGGTCTTCGACCCACGCGTCCGAAA
CTTTAATTTTTAGGAATAACATATTGACTTACTGAACTGAAGCATTCTGAGTTGAAAGGA
GCCCCAGGAAAGGAGTTCTGTGTTGCTCACATGTTAAAGCTTGCTCACCTTCAGAGC
AGAGGGAATACCTATCTTCAGATATCCGCCCATTTTTCATCTCTTCATTATAGTCAACAG
TGTGACTTGAGAGTGTTGCTCTGGTGTCTGTATTCTGGCTTATGAAGATTATTTGAAAAA
GAACTCTTACTACATTGAAATGCAGACTTTTAAAAATTTAAATATTGGATTAGGCAGTCA
AAAAACCAACAAGCATAAAAGGTGAGTAAGTTGTAATCTTAAAGTAAAGGTGGAAAAAC
TCATTATAAATGGAAGAAAAGTTTTGATTTCTTTTTTTGTTGATGGGCAGTATGCCATA
TTATATCAAAGTTGGTTAAAAAATACTTCCATCAACTATTTTTATTTAAATAAACAT
TT

Sequence 2296

CCGCGGTGGCGGCCGAGGTATACTTTGCACCTTGAAAATATAAAATAAAATAAATTTAAA
AATAAAGTAATTTTGTCTTCCATGTCAGCTGAAAATAAGTGAAGACTGGGTGAGTAAT
AACATTGCTTTGCTGAATTCAGAGAATTCTAATAAAATATTTTATGTTGGGAAGCTATCT
GTATTAATAAAAAATGATCTAAGGCTGGTAACAGTGGCCATACTTATAATCCAGTGCTTT
GGGAGGCCAAGGCAGAAAAATCACTTGAGGCCAGGAGTTTGAGATCAGCCTGGGCAACAT
AGTAAGACCTTATCTCTACCCGGACGCGTGGGTGCACTCAAGACCTGCCCGGGCGGCCGG
CCGCACTTTTTTTTTTTTTTTTTTTTAAAGCTGCTCCTTGAGGATAAGGGCTAACTCACAG
GCAGTGCACCAAGAGCCACTATAAAAAGATCCTTAATGAGCAAAATATATCC

Sequence 2297

CCGCGGTGGCGGCCGCGCGGCGGCGAGGTCAAGTCGACCCACGCGTCCGCTTGTGTTGCTCTA

TABLE 1
381/467

TCCCATAGGAGTTGGTATGTTGTGTTTCCAATATCATTTACTAAAAGAAAATTTTCCTTTT
TATTTCTTCATTGACCAACTGGTCATTTGCATGTTCTTTAATTACTATGTGTTTGTATAG
TTTTCAAAATTTCTCTTATTAATTTCTAGGTTTTCTGTGGTCAGAGAAGATGCTTGATA
CTACTTTAATTTTTTGAATGTTTTAATACTTGTGTTTGTGACCTAACATATGATCTACCT
TGAGAAATTATCTATATGCTGAGGAAAATAATGTGTATTACACAGCCATTGGATGAAATAT
TCTGTAACATCTCTTAGGTACCT

Sequence 2298

GAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGCTTTATTTATTTCTTTTAGGAAT
TGCAGGTTTCTAACAAGTAGGGGTGAGGGGGGTGTTACAAACCAGTCACTAGGCAGGAA
CATTAGACTCCAAAAGCAGAGAAATGCTTAATTTTTCTTCTACCTGTTTACCACATTCA
TGTAAGACTGTAGTAAAAAGATGGTGAATCAGGCTGAATCAATCTAAATAACAACCTAA
GGCTCCCAATCACATGAACCTAGGACCACTAAATCCAATGTCAGACGTGTTTAAATGGT
GCACTGCTCTACATTTTTCTATTATGCAAAGAGCTAGAAAAAATGGTAGTGTCATTATG
ACATTCCATGAAAAATGAANGAAAATCTTTCAGGAAAAATTAAGAAAAATAAAAATGTTTAC
TAAAGAAAGAATGGTCCGGCTAAGTGCTANAGTTTTNTTTCNNTTTTTTTTTTA

Sequence 2299

AGGTACTATCAAGCTTTATTTTACCTGCAAAAAATATTTTAGCTACACTTGAAAAAATA
AACTTGAGAATATAACTTCACATTTCTAAGGCCAGCGGACGCCGTGGTCTGAAGCTCGACC
TGCCCGGGCG

Sequence 2300

AGGTACGATTTTCCCTTCGCTTGAATATTATCCCTGTATATTGCATGAATGAGAGATTTT
CCATATTTCCATCAGAGTAATAATATACTTGCTTTAATTCTTAAGCATAAGTAAACATG
ATATAAAAAATATATGCTGAATTACTTGTGAAGAATGCATTTAAAGCTATTTTAAATGTGT
TTTTATTTGTAAGACATTACTTATTAAGAAATTGGTTATTATGCTTACTGTTCTAATCTG
GNGGTAAAGGTATTCTTAAGAATTGTCAGGTAATACAGATTTTCAAACTGAATGAGAGA
AAATTTGTATAACCCATCCTGCTGTTCCACCTGCCCGGGCCGGCCCGCTCTAGAACTA
GGTGGGATCCCCCGGGCCTGCAGGGAATTCGATATCAAGCTTAATCGATACCCGTCGACC
CTCGANGGGGGGGCCGGGTACCCAGCTTTTT

Sequence 2301

GGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAAGCTTCGACCCACGCGTCCGGTGGCGA
GTGCCTGTAATCCAGCTACTGGGAGGCTGCGACAGAAGAATCACTTGAACCTGGGAGGC
AGAGGTTGCAGTTAGCCAAGATCATGCCACTGCACTCCAGCCTANGCAACAGAATGAGAC
TCCATCTCAAANNAGAAAAAAGTGCAGGCACTGCCCGGGCGGCC
GGCCGCACTTTTTTTTTTTTTTTTGGCATAAGGTTCAATTTATTGAGTGGAAGCTT
ACAAAAGGGCCACTGGCCCCCTCC

Sequence 2302

CCGCGGTGGCGGCCGCACTT
TTTTAGGGTTGAGGGGAATGCTGGANATTGNAATGGGTNTGGANACATATNATATAAGT
AATGCTAGGGNGAGTGGTAGGAAGTTTTTTCATAGGAGGNGTATGAGTTGGTCGTAGCGG
AATNGGGGGTATNCTGTTTGAANACCTGCCCGGGCGGNCGGCCNCACTTTTTTTTTTTTTT
TTTTACTTTGGCNGGGGNTTTTTCTTTCTTTTTTTTTTTCAGCTACNGGAATTTANCCN
ATTCANAGGAAATCTTCCCCATAATTANGGAACCTTTNTTACANANTTACCAAGTNTGGG
CNNCCCNATAAGAAAAAGACTGAAATAACAACAACNACTTTAANAAAT

Sequence 2303

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCNNTNTNTTTTTTTTTTTNTTNGCCAG
NTANAATCTNAGCTTTTTATTTGTAGGAAAAAATAAACAGATTNCCCTCCNNAACANGGC
GTNACAANAANGAGGCAATNAAGGGAAAAANGCANATNCTAAACGGACNCNTGGGTTNA
ANCTTGACCT

Sequence 2304

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGT
CCGAGAAGAGTTTGCAAATGCAACAAAATATTTAATTACCGTTGTTAAACTGGTTTAG

TABLE 1
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CACAATTTATATTTTCCCTCTCTTGCCTTTCTTATTTGCAATAAAAGGTATTGAGCCATT
TTTTAAATGACATTTTGTATAAATTATGTTTGTACCTGCCCCG

Sequence 2305

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCCGCA
CTTTTTTTTTTTTTTTTTGNTTCTGGGTGAAGTTTATTCTGTTTTACATCTAGGT
TGTTGGGAGAGTGATAGACAAAGTTCTGGATTCTGGGCATCGTCGGCGCATGCTTGTA
TCCTACTTGGGAGGTTGAGACAGGAGGATCACTTGAGGCTAGGAGTTGGAGGCTGCAGTG
TACCTGCCCCG

Sequence 2306

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCCGCCGCACTTTTTTTTTT
TTTTTTTTTTTTTCTTCTTCTCTTGCCTGGATTGAGTCCAGAAATGTTAGGACTACC
TCAGTTTGTCTCAAACCAAACCTCAAACAACAGCAGCCACTGGAAATCAAGGAAACTTCA
CTAAGAATTTAAGATCATCAAAACACCGCCTCCTTCCCATTTTAGCCGGACGCGTGGG
TCGAAGCTTGACACCTGCCCCG

Sequence 2307

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCATTAATA
TTCTGAGAGGTGAATGTAAATATAAAAGGTATAGGTTTTTTTTTTAAAGAAAACAAT
NAACTTTCAAAGAGAAAACCAAAAAAAAAAAAAAAAAAAAAAAAAAGTGCGGCCGGCC
GCACTTNTTTTTTTTTTTTTTAAANANANATGAGGTTTGTATGTTGCCAGGCT
G

Sequence 2308

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACC
CACGCGTCCGTTCTAAATGATCGACAACCTCTCAAGCAATAACTTGACTGTTGAATAGAAG
ATTAAGAAAAGTTGGTTAAAAAAAAAAAAAAAAAAAAAGT

Sequence 2309

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAAGCTCG
ACCCACGCGTCCGAAATAATAAAGCTAGAAGTAATTTTTCTTTTGTCTATTTTCCAA
ATTGACTCGATATTGATGGCTACTTTTGTAAGTTTTATTTAAGTTTAAAGGGAATATT
ATTGATCACCTCTATGTGCTCAGTACCT

Sequence 2310

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGCTTCGACCCACGCGTCCGCA
AAGTTACCAAATTCGCTACAGCCTAAGACTAGCCTCACCAGTCTTTTTCCCATTAATC
AAAACTTTGCAGAAGAGACAATGATTTTTACCATTATTCAACCAGTTTGCACAGAGAGA
GGCTGAAGCCTGACTTGTAAGAACTCTTGCTCTTTTGCCAGTGTCAGGTTTCTGGGT
TCCCCTTCTCTGAGTGGCTTTGATGACCCTGCTTGCTGTGCCATAGCTATGGGGGGGCCA
AGCCATGTTACCCAAAAAAAAAAAAACNNNNNNNGGTGCGGNCNGNCCCTCGNGATCT
AAANCCCCATAGGGGGNGGGATTAACAATTNCCATTCCCNNGGGGAAATTTTTGGCNCC
TTTTNTTGGGGAANAAAATTTTTTTTTGNAATTAAANGGTTAAAAANCCNCCCCTT
TTTGNAAAAATTTANTGGNTTTAACCCCCC

Sequence 2311

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTAANGCTG
CTCCTTGAGGATAAGGGCTAACTCACAGGCAGNGCACCAGAGCCACTATGAAAAGATCC
TTAATGAGCAAAATATATNCCCTATTATTTTCTACAAGTTGCTTTTACTTGAGTAGGA
ACCCTTGATTG

Sequence 2312

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACCTGGTATGCCAGA
TGAGAATGACAGGAGCCATCCGCAAGCAGTTGGCGGCTTCTTAGAAGGCTTCTATGAGA
TCATTCCAAAGCGCCTCATTTCCATCTTCACTGAGCAGGAGTTAGAGCTGCTTATATCAG
GACTGCCCAACATTGACATCGATGATCTGAAATCCAACACTGAATACCACAAGTACCTGC
CCGGGCGCGGCCGCACTTTTTTTTTTTTTTACCTGAAAATGCTTATTCTAGCTTCA
CATTTGATTGTTTGGCTAAGAAGAAAATTATTTATTAGACTTAATTTTCTCAGAGTTT

TABLE 1
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AAAGATTGCTTCAGATCTTAACTTCTAATGAGGAAAGCTGAGA

Sequence 2313

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGCAAGCTTCGACCCACGCGTC
CGCAAAGTTCACCAAATTCGCTACAGCCTAAGACTAGCCTCACCAGTCCTTTTTCCATT
AATCAAACTTTGCAGAAGAGACAATGATTTTTACCATTATTCAACCAGTTGCACAGA
GAGAGGCTGAAGCCTGACTTGTAAGAACTCTTGCTCTTTGCCAGTGTGCCAGGTTTCT
GGGTTCCCTTCTCTGAGTGGCTTTGATGACCCTGCTTGCTGTGCCATAGCTATGGGGGG
GGCCAAGCCATGTTACCCAAAAAAAAAAAAAAAAAAGTGGCGCCGGCCGCCGGGCA
GGTGTCACTTTCAACTTGTTATGCCTAAACAAAGTCTCCCTCATCTCCAAACAATTTC
TCCCGACTTTCTTTCTTTTTGAGATGGAGTCTTGCTCTGTGCCCCACGCTGGAGTGCAG
TGGCATGATCTTGGCTCCCTGC

Sequence 2314

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTTTTTNAAATGCTCAAAAGA
ACAATTTTTATGTAAGTTTGATAGAGGCCTCAGGTAATTCTACAAAATTAACCCCA
TTTTCAATGCAAAATTCCCGAACATAAACAAATGCTTTTAAAAATATGGATGGNGTGGTT
ACTCTTTTAGTAATACTTGGATTATCATCAAAGATTTAACTTTATTTTTGNGTGTGTG
TGTGTTTTTTTTTTGNGNGNGTTTTTTTTTTTTTTTATTATACNCTAAGTTTTAG
GGTACCTGCC

Sequence 2315

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACC
CACGCGTCCGACTTTTTGTCTTAGACCCAGTTAGGGTCACCTTACAGTGCAGGTGGAAAG
AAAGCAGGACTGCTGAGAGGAGCTCAGGA

Sequence 2316

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCACGCGT
CCGGATTAAAGTCTACGTGATCTGAGTTCAGACCGGAGTAATCCAGGNNGTTTCTATC
TACTTCAAATTCCTCCCTGTACCTGCCCG

Sequence 2317

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGNCGAGGTGTACAANGCTTCGACCCACGCG
TCCGCCACACGTAAGTGAAGTCTCCTTTAAATAAAGCGTTTGTGTTNGANGTTAAAAAA
AAAAAAAAANAAAAAAAAAAGT

Sequence 2318

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTNNTTTTTTTTTTTTT
ATTATCTAAATCAGNTTTATTTAAGAATTTCCACANTGACAACTNTTATAAAGGGGCAT
CCAAGCACAGGACACANAAGTGCNACAAACAGCATTCTTACGGACGCGTGGGTGGAAGAC
CTCGGCCGCT

Sequence 2319

CCGCGGTGGCGGCCGAGGTACAGAATGGTAAAAATTCCAATCAGTCAAAAGAGGTCAATG
AATTAAGGCTTGCAACTTTTTCAAAAAAAAAAAAAAAAAAAGTGGCGCCGGCCGCC
GGCAGGTGAGCGGCAGCACTTTTTTTTTTTTTTTTTTTTATGNTTTTATTTTCA
ATTTTTATTTGGTTTTCTTACAAAGGTTGACATTTCCATAACAGGTGTAAGAGTGTG
AAAAAAAAAATCAAATTTTGGGGGAGCGGGGAAGGAGTTAATGAACTGTATTGCACA
ATGCTCTGATCAATCCTTCTTTTCCGGACGCGTGGGTGGAANACCTCGGCCGCTCTAGA
ACTAGTGGGATCCCC

Sequence 2320

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCTCTTGTCTAGT
ATACTCAAGGCAGCCTAGTAAATTATTATTTATCTATACAATACTGGAAAACTNGNAGA
CAAAAACATGACTTGAATTGCTAAAAAAAAAAAAAAAAAANGAGGGAGAATGAAACT
TCCGGACGCGTGGGTGGAAGCTTGACCT

Sequence 2321

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTNCATTTACATACAAGTGA
TCCAAACAGGAAGTAAAGCNTTATGAAAAAGAACATGATGCAAATCATTTCCCNNGA

[illegible]

TABLE 1

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AAAAAGAAAATTTTTTTTTTTTTTTAAGCCNTTTTAACCNCCAAAAAAAANNAAGTGT
TTTCNNNCGNNNCTTTTNNAAAANNNGGNACCCCCCNNGNGGGGGGGANNTTTTTTAA
TTTTTTNNCCCCCCCCCTNGGGGGGGGGGCC

Sequence 2329

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCACGGTACTGAGGAAATATT
TTGTAAAGTGAGCTTTGGGTATAACTTAGCCCCATCATTATTTAGAGAATAGAGGAGGAA
GAAAGAGGAAGGATTTTAAAGGCAGACAATGACAGACCATTGAGGATAGGTAGGGTTTTA
AAGGGAGCGGACGCGTGGGTGGAAGACCT

Sequence 2330

CCCCGCGGTGGCGGCCGAGGTACCCTAAAATTTAAAGTATAATAATAATAAATTTTTTTT
TAAAAAAGAGTGTTGCTTTGCTTTGCTATTTTCTGCAGTTTGCATGTGATATTCTTAGG
TATAGATTTTTTTAGTATTTGCTGTATATTGTTATTCGAGCTTCTGGGGATCTGTGT
TTTGGTGTCTATCATTAACTTTGGAATATTCTCAGTCATTACTGCTTCAAACATTTCATTC
TGTTGCTTTTTCTCTTCTGGTATTATCATTACACATATACACACCTTTTGAATTCTCC
CACAGTTCATAGATATTCTGTTGTATTTATTTATTTTTCTCTTTGCCTTTTAGTTTTAG
AGATTTCTATTGACATCACTTAAAGATGATTGATGAGTTGATGAGAATTGAGAGAATTGA
TGAGAATTGTTGATGAGAATTATTCATTTGTGTTAGTGTTCATTCTGCCATTGNCT
TTTGATTTTTAGAGCTTCCATCTCTCTGCTTACA

Sequence 2331

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACCTTGACCGTGACCGTTTG
CTATATTCCTTTTTCTATGAAATAATGTGAATGATAATAAACAGCTTTGACTTGAAAAA
AAAAAAAAAAAAAAAAAGT

Sequence 2332

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTATTTTATAGAAAAGAA
AACAGAGGCTCAGAGAGGTAAATTTTCTGGATGTCCTAGATGTTAAATGTTACAACCT
TAATTGACCGATTCCAGAATCAGAGCTATTAACACAAAACCTATTTAATTCTCTCTAAA
TTCTTAAAGACCCAAGAAAAACAACTTTATTGAGATAATTAGGAATTTTTTTTAAATA
TCGGACGCGTGGGTGGAAGCTTGACCT

Sequence 2333

AGGTCAAGCTTCGACCCACGCGTCCGTGGTGAACACAGAGAAGACAGTCTTGTATATATT
CCTCTGTATTCTGGGGAGCTTTGACCTTGAGCTTTGTACCTGCCCG

Sequence 2334

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGCAACAC
CTATGTTTATAAAAATTTGAAAACATTACATATTGTATTTAAACTAATTAGNGAAGAGT
AAGAAAAAACTAGCCAACAGAATTGTAGGTGATGCATTAGTTAAATTTCAAACCTCATA
ATAAAGGAACTTTCAGAGATTGGTTGAAACCCAGTGGTATCCCTGTAAATTAGCTCCTGT
GACTGGAAAAGACCCCAAAAAGGCAGTAGAGGAGATTAGTGTCTACTTGCTGTGGTTGTG
GTGTGCTGCTACTTAATTATAGGTAGTGACACACTGAAATTCCTATTTGTCCAATAATCT
GAAGTAGTTTCCTATATTTATCTGTACCTGCCCGGGCGGCCGCGCACTTTTTTTTTT
TTTTTGCNNGGGNTTTTTCTTTCTTTTTTTTCA

Sequence 2335

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTNNNTTTTTNTTTTTTTTTTCTT
TAAACACCANTTAGTTTATTTAGGACAAGAATTTACCATNTAACANTCTTTNACATAA
ATTCTGNCTCCCCCACTTTTTTTTTTTGAANATAACCATTCTTTTTTTTT

Sequence 2336

CNAANNNGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATCTNTATCAGAGCTTTT
GGGTGACCAGGCACACTGTCAATGAGCAGTAATACGGGGAAAGGAATCTTTGGGGTTTTT
TTTGGTTTGGTTTTGTTTTGTCGTTATTTTTTGTTTGTTTGTTTTTGTTTTGTTTT
TTTAGCAGTAGGCCTCAACAGTGGACTTAAATACTCAGTAAACCATGCTGTTAACAGAT
AAGCTGTCATCCAGACTTTGTTGTTCCATTTCTAGAGCACAGAGCAGATTTAGCAGAATT
CTTAAGGCTTTAGGATTTTCAGAATGGTAAATGAGCACTGGCTTCAACTTAGTCACCAGC

TABLE 1
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TGCATTGGCCCCTAACAAAGACAGTCAGCCTGGCCTTTGAAGCGTTGCAGCC

Sequence 2337

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAACTGCACATATTTAA
AACATATAATTTGATACATTTTGACTCACAAAACAATCACCACAATCAAGANGATGAGNN
TATAGATCACTCCCAAAAGTTTCCCTGTAGTCTTTGCAGTCCTTTCTTCATGGCCTTCT
TCATCCATCCACCCCATCTCGGTAACCAATGATCTGCTTTCTGTCACCACAAATTAGTGA
GCACTGTCTAGAATTTTATGTAACTGAATAATAAAGATTTTACTCTTTG

Sequence 2338

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTC
CGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGGAATCATCATTAACTTTAT
TTGNCACTNTTGATAGACATTGGTCCACTCCAACATAAAAAAGNAGAATTCACCCACTTCC
ACTTAATATTCTATAGAATGAAGTTGTACCTGCCCGGGCGGCCGCGCCGCGCCGCGGCGAGT

Sequence 2339

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAGATTTTTTACACAA
AGAACTTAATGCTGTATTAATAAATTCAGTGTGTAGCTTCAATTGGGATAGTTCCAAA
GTGAAGATTTTGTGAGGAATAAGTGCAAATTTTTTTTTATTTAAAAAATCTTTGAAA
CTCTAAGTCTTTGTGTCTGCAATAAAATTGTACCTGCCCGGGCGGCCGCGCCGCACTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTNGAAANGTTTGAAGTTAACTCATTTTATTNTAGGA
TTNGGATTTCAACATTTTAATTTNTTTGGAATATAAGTCANTTTTTGCAAGCTAAAAAAT
AGAATCAAA

Sequence 2340

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGGACTTGATTACATAACCAACCA
ACCCAGGCTGTCATGCTAAAAAAGGGCAGAATCTTTGCTGCTGAACTACTGCATAGGG
TGACTACCATTGCTCCTTTAGTTTAGTTTGGCTAGCAGAAAGGTGGTCTTGCCATGTAAAT
AAAGCCTCTCAGGTAATCAAAATGTTTCTTTTTTACTTTTGCTGGTGTTTTTCTTTT
CTTTTTTTTTCAGCTACAGGAATTTAGCCAATTCAGAGGAAATCTTCCCATAATTATGG
AACTTTCTTACAGATTTTACCAAGTCTGGTCAACCCAATAAGAAAAAGACTGAAATAACA
ACAACAACCTTCAACAAATAAAAAAAGCAGTTAAGCTAAATAAACAGATG

Sequence 2341

AGGTACTTCTTACATAGTGATTGATGTCTCATGTCTCCCTAAATGTATAAAACCAAGCT
GTGGCCGGACCACCTTGGGCACATGTCATCAGGACTTCTTGAGGCTATGCTACTGGGCAT
GTCTTCAACCTTGGCAAAATAAACTTTCTAAATTAATTGAGACCTGTCTCAAATTTTGGG
GGTTACAGGCTGAGTGGGCTCAGGCATGTGCACTAGTATGACTAAAGGTCATAGACTATT
AGACTATTAGTCTATGACCTTCCCTCTAGAAACACTCGACTGGTAAGGGAAGAATGCCTCA
ACTGAGCATGTGCACAACTCCATAAACACACTTGTGCTTGGGAGCCTNTCAAGTGCTG
GCAGGCCACTGCTCAGGTGGATTCTTCCCTCCTACCCGGAGGGAAGAATCAGGGGAGAAG
GGACACAAGCCCCTGAATGCATGCCAACACGTAA

Sequence 2342

CCGCGGTGGCGGCCGAGGTACCTTCAGGTATTGCCTATTTAATGATCATATATACTTGCA
TAATATCATCCCTTCCCTTGATTTCTTTCAATCTAAAAATAAATATGAGAAAAACAAAA
AAAAAAGT

Sequence 2343

ACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGGACTCAAGACC
AGATGGCCAACTAGAAGCAGCCAGGAAGAATCTCTCATGGAGAGACCAGGAATTTGGG
AAGACTGGCACACTCTGAGCAGATCTTTTGAAGGAAAACATTGAGGGTGGATGAAGGGAG
GATGCAGAGCATGGGCTGAGGGGGCAGGAATCTCAGAAGCCTGCACAGGGCTTCCAAGCA
CTAGCATTCCTTACTAGCCCCATTAACTCCTGGGGAAGGGGTGAGTTGAATAGGTGGNG
GAGTGGCCCGCTCTTACCATGAACTCCAGAATCCTAGCAGCAAGAGACCCCATGACCCC
TGTGGACACGAGCTGTCCGGACGCGTGGGTGGAAGACCTGCCCG

Sequence 2344

CCGCGGTGGCGGCCGCTNNCTGCCCGGGCGGCCGCGCCGCACTTTTTTTTTTCTTTTTGG

TABLE 1

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AAAAATNTNNNGACTCTGGGGATAAAANTNCNAATTAAATNNATNCNANNTTTTAAAGGC
TATTAANNANAANAATATTNGCTAAATTNNCCTTNTGCATAACAACTGTGGNTNTACCA
TGTAANGTTTAAAAAATGTNTAACCNCAATTTTACGCTCCTCTGTNACANGACAAGGAC
TCCATTCANTGNCATTTAAGAACTNAATGGGTTGAN

Sequence 2345

AGGTCAAGCTTCGACCCACGCGTCCGATAAGCCAAAAAATGGGAGACAATTTACATGGA
CTTTGGAAAATATTTTTTCTTTGCATTCATCTCTCAAACCTTAGTTTTATCTTTGACC
AACCGAACATGACCAAAAAACCAAAAGTGCATTCAACCTTACCAAAAAAAAAAAAAAAGTG
CGGCCGGCCGCACTTTGTTTCTACTGGGTTTAGACCGTCGTGAGACAGGTTAGTTTTACC
CTACTGATGATGTGTTGTTGCCATGGTAATCCTGCTCAGTACCT

Sequence 2346

CCGGGCAGGTACCTGCTCCATTTCTCCTGCAACATGTGGATACAGTAATATGATCATACC
CTCCCTTGTTCCOCTCTAGGCCACTTTCCCTTTAAATATTAACACCATCATAATCATCT
TTGGAGAAAGACACCTGGATCTGTCTGAACCTTGGCAAAAAATAAATAAATAAATAAAA
ATAAAAACTCTTCTCAATTGATTAATACCTGTACAGATACATTTTGGTTTACAAATCA
ATGAACAATGGAGGGAACCTCTGTCTTAATCTTGGTACCT

Sequence 2347

CCGCGGTGGCGGCCGAGGTCTCTTGTGTTGNTATTACACTTCTACGTAGATTATATAATAT
TGCTTGTGGACATAATTTGATCAATAATATATAATGTCAGTCACTACAGTGATCCAGAAT
CTTATTCTGGCTATGGAGGAAGCTTAATTATTAAGCAACATCTTCTAAAAAGCTTNTGA
ATTTCTGATTCATAAGAAAAACAAAACAAATGAAAAGAGTATCTNTAACTGAAATAACAC
TGAAGTTCGAGCTTGGGCCCCCTCCTTTGTGTTCAACATAATTAACNTTCAAGATGAAA
CCGGACGCGTGGGTGGAAGCTTGACCTGCCCGGGCGGCCGGCCCGCCCGGGCAGGTGTTTN
TTCTGGGATATCTTTTTCTTCTGGGCAACCTCCTCTTCTGGTTTAGGAACAATCTGTTCC
TTTTCCGNAAGGATCATCTCAATGTGGCAGGGAGAGCTCAT

Sequence 2348

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCTTCGACCCACGC
GTCCGGGCAATTATCAAAAACACTTGGAAAAAGATTTTATTCTACTTTTAAACATACA
TCAAATCTAAATAAAACTAGGCACCTTCAGCTGGGCCTGGTGGCTCATGCCTGTAATC
CCAGCACTTTGGGAGGCTGAAGTGGGCAGATCACTGGATGTCAGAAGTTCGAGACCAGCC
TGGCCTACATGGCGAAACCCCTNTCTACTAAAAATACAAAATTAGCCGGGCTTGGTGG
TGGGGACCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCACTTGAACCTGGG
AGGNGGAGGTTGCAGTTAGCTGAGATCACACCACTGCACTNCAGCCTGGGCCACAGAGCA
GGACTCCATCTTAGAACAAAAACAAAACAAACCAACCTCATGCACCTTCAAGAAAA
TCAAACAAGTTTTATCTAATTAAGAAAGAATTTT

Sequence 2349

AACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGC
GTNCGCTTTAACACACACTAGGCTCTTTGTGTATTATGATNCAGTGCTATTTGTAAGTGT
GTCCAGNGACCAAATTGCACTCGACTCGATCAGCTGTTTCATCCATTTCTGTGTTTTTCC
TGTCAAACATTAATCCAGCAAATATATGAGGTATTTACCAATTTATTTCTTAGTATTAC
AAAATAATTCATTAGCATAAAGTACCTGCCCG

Sequence 2350

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTAAATCATAGAGC
TGCCCCAACATCTAGACAGTCTCTCCTACTGATTATAAATGAGTGAAAACCTATCAGTTAG
AAAAATCTAATTTAAGTTGTTAATACATGTTTCTTTGGTGAGCACCTGGATATATTTATC
ACAAATTCTTTTATACAAATGTCGAAAATGCTTTCAACAAACCTAAGTGTCTTAATTACA
TGCCACTTTTAAAGCATCACTTTAAGGTAAACAAAAATGAAAACCATAATTTTAAATTTAA
ATTTGCGGACGCGGGGGTCTGACTCAAGACCTCGGCCGCTCTAGAAGTAG

Sequence 2351

CCGCGGTGGCGGCCGCCGGGCAGGTGCTTCGACCCACGCGTCCGGATGGCTTGGGTGAT
CAGGACGTCCATTACATCCAAAGGAAGACAGCCTGTGACGTTTCAAAGCAAAAGTCCCC

TABLE 1
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TACCAGCCAGTGAAGCTACCTGATTTCTCAGTATCTTACGCCAGNGACACGATCTACCC
TCAAAACTTAAAAAAAAAAAAAGGGAAACATAAACACATAACAGCAGACCTN

Sequence 2352

GGGCCGNGGNCACAACATTCCCCCTTCCCCAAACAGTAATATGGACACTGATTTAACANG
ACTTATAAAAAAATAAGGCNCATTTATTTTGATNTGGTAATTTTAAATAGAAACCCCTT
C

Sequence 2353

GCGNGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTNC
GAGCTTGAGTCGACCCACGCGTCCGTGAAAAATGTTGTCTCCTTTCTAAATTCTCTGCCGA
TTTGGGAAAAAGCAAACCTTGACTTTACCCCGAGGAATTGGTGAAAAATTACTTTTACGCC
TTGCAGCTGTGGAACCTTGGTCTTACAGCCTCTGCTCTTCTGCCAAACGGGCCATGCAGT
TTGGATCAAGAATTGCAAAAATGGAAAAATTAATGAAAAGGCATCTGATAAATGTGGAC
GGCTCCAAATCATGTCCTTAGAAAAATCTTTCTATTGAAAAGGAGACTAAATTGTAATGTG
ATTCACAATGTAACAATATAAAAAAAGTTTTATATAATTATTAAGGNAGATACTCT
GGTGCTTTACTATTGGATAAAATAAGTAAACCTGCCCGGGCGGGCCGGCCGACTTTTTTT
TTTT

Sequence 2354

TCCCCGCGGTGGCGGCCGAGGTTTCAAAGACCNGCCTGGCCAACATGGTGAAACCCCATC
TCTACTAAAAATATAAAAAATCAGCCGGGCATGGTGGCATGTGCCTGTAATCCCAGCTACT
CAGGAGTCTGAGGAGGAGAATCACTTGAACCTGGAGGCAGAGGTTGCAGTGAGTCGAGGT
TGCGCTACTGCACTCCAGCCTGGACAACAGAGGGAGACTCTGTCTCAAAAAAAAAAAACC
TACAGCTGTTCAAGGACCAGCTGCAGGGNCAAGNNGGGGCCTTTTTTGGTCTTTGAACAC
ATCATAGAAAGNNGNCAAAATGCTGCAAAGCCATGAAGAACATGAACCTTTAACCGGGTAG
ACTAACTGCCCCACTTANACNCTTTTTTTTGGCCCCAAAAACAAGNTTGATTTTGGCCCT
TTTTTTTTTTTNTCCATTGGGGGGAAGTTTTGGAAAAANAAAANGGGGCCNCCCCCCCCCT
TTTTTTTTTNNNNCNAAAAANCCTTTTTTTTGGTTTTTTTAAAAAAAAAAAA

Sequence 2355

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGGCCAGAGACTTC
AAGTCTATCTGAAAAGTCTCCAGAGGTCTAACCCAGATAAATAGCCAACAGGGTGTAGA
GTACATTTTACACCCCAAAGAGTGTGCCCCATGGTGATGAAAATAAAGTGAACATGTTGC
AAATGAAAAAAAAAACCT

Sequence 2356

CCGCGGTGGCGGCCGCCCGGGCAGGTACCCAACACAACTATTCAATAAAGTAATCTGCT
TTAAAAATAAAACACACTGAAAGGCCGAGGCAGGTGGATCACCTGACATCATTAGTTCAA
GACCAGTGTGGCCAACTGGTGAAAATTAGTCTCGACTAAAAATACAAACATTAGCTGGG
CGTGGTGGCAGGCGCCTCTAATTCCAGCTACTCAGGAGGATGAGGCAGGAGAATCACTTG
AAGCAAGGAGGTGGAAGTTGCAGTGAGCTGAGATCGTGCCATTGCACTGCAGCCTGGGCA
ACAGAGTGAGACTCCGTCTCAAAAACACCACCACCAACAAAATAAACACAACAGAATTAT
TCTGCAAAATACAGATATTGGAGTAGCTGAGTTNCATCTCAAATTTGACTATGCAGGTTGC
AGGGTGATCTTGGCCAACCTACTTATTCTTTTNTGAAGTTCAACTTTTTT

Sequence 2357

CCGCGGTGGCGGCCCGGAGCAAGTGGGCCTGTAGCCCGACTCTTAATCCAGGTTGGTGCTA
TTCAAAGAGATCATCTTTACCCGAGGGATTTCTGGGCATCTATTTTGC GGATCAGAAAG
TAGAGAAAGAAGGTAACCTTTGCTGAAAGCTAGTCTGGGGAGTTAGTAGCTGATACAGATC
AGCATTTCTAACTATGAGATTTTATAATATTCTCTCTTGTCTCGATTCTGAGTCACTGG
TGCTGCTGTGGTGGCATTGTTTATGAACATGTACCTGCCCC

Sequence 2358

AGGTCATGTGCACATTGTGCAGGTTAGTTACATATGTATACATGTGCCATGCTGGTGCGC
TGCACCCACTAACTCGTCATCTAGCATTAGGTATATCTCCCAATGCTATCCCTCCCGCCT
CCTCCACCCCAACAGTCCCAGAGGTGATATCCCTTCCCTGTGTCCATGTGTTCTC
ATTGTTCAATTCCACCTATGAGTGAGAAATATGCAGTGTTTGGTTTTTTGTTCTTGCAT

AGTTTACTGAGAATGATGATTTCCAATTCATCCACGTCCCTACAAAGGACATGAACTTG
AGAATTCCTTAATGCAGTGCTTTAATACAGTAAAAATTTTGTAGTCTTTGTTTTCTACAAAA
TGCATTTGAAAAGTGCACTCTTGATCTTGNATTTTCTTTCTTTCTTTTGAATCATATT
AGCAGTTGGACGTATATATAAAATATTAGTGTAACCTGCCCGGGCCCGGCCGGTCTAGAAC
TAGGTGGGATC

AGGTGTACAAGCTTCGACCCACGCGTCCGAGCAGAACTTGGCAGCAACAGAGGAAGGGCC
CCTGGAGCCGGCTGTCGTGGATGCCTTAAATCAAGCCTGGCATTGGTTGCTCACGAATG
TCCCAACTCTTCGCTAGGCCATCATGCTCAGGCTGCCAAGGCTTTTCTGTCACCTCT
TTTGTCTCTCACACTGACCAGTCTTACCTGCCCGGGCGGCCGGCCGGCCGGCCGGGCAGGTAC
CAAGTGAATTTAAATAATTGGTGTGGATTGGCCAGTAGCTAAGTGGGCTTTTAAAGAGTA
TTGAAGATTGAAAGGGTTTTCTTTCTTTTTTAAAAAGAAAAACAACTATTGATTGTA
GATAATGAAAAGCTAGGGTTT/GCCCTCTTCATGTCTACTCTCCTTCAAATAGTTATATC
CAAACTGTTTTTCTNTCCCGTACCTTGTC

CGAGGTACACAGCTATGCACTTTCCGTTTCTGACTTTTGCCACCCTGTCAGCCATGGGGA
GCCCCTGTGGGACTGAAACCCTGAGCTGAATGCGGCCTCATGTCTCAGAGAAACACTGG
CAAGTTGGTCAGAGCCGCGTCTGCATCGAGGCGTAGCTGANCGGCAGGATGGGGGGCTGC
CTGCCCAGGGTCTCTCACCGTGGTGAAGCAGAGCCATGGCTNGCCTAGGACCCTATAGA
TACCATCACTCTTTCTCAGCTCGACTGGAGTTTGCACCTTGCAGGGGCAAAGTAACTCC
CTGCACCCTGAACCACCCCCCATTCCTGTTCAATTCAGCAGATAATGATGGAGGGGGGGG

CTATAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTCAAGCTTCGACCCACGCG
TCCGCTATCATATTTCAAATCCTAATGGGAGACAAAAACAAAAGTGATGGTCAGTATTTCT
TTGAAATTCTACAAGGAACTTCAGGCACATGGTGCTGATGAGTTATTAAGAGGGGTGTAC
GGGAGTTTTTTGTAATCCAGAATCAGGATACAATGTCTCTTTGCTATATGACCTTGAAAA
TCTTCCGGCATCCAAGGATTCCATTGTGCATCAAGCTGGCATGTTGAAGCGAAATTGTTT
TGCTCTGTCTTTGAAAAATACTTCCAATTCCAAGAAGAGGGCAAGGAAGGAGAGAACAG
GGCAGTTATCCATTATAGGGATGATGAGACCATGTATGTTGAGTCTAAAAAGGACAGAGT
CACAGTAGTCTTTCAGCAGAGTGTTTAAGGATGACGACGATGTGGTCATTGGAAAGGTGTT
CATGCAGGAGTTCAAAGAAGGACGAGCAGGACGCCACACAGCCCCACANGTCCTNTTTAG
CCACACCTGCCCGGGGGGCCGNTTGAGGGCCNCCCGCAGGGNNNGTNTNAAACANNGTAA
ACATGTATTATGNAACCTTTAATCTTGGGGGNCCTTANACAGGGCTNNTNCCAANGNTTA
ANNAAGNTTGNNTTNAAAAAAAAAAAAAGGGATGGGTNTTTTTNAAAAAAAAAAAAAA

CCGCGGTGGCGGCCGCCGGGCAGGTACAGCCTCACATACACAGATGCAGGTGAAGTCACC
AAAGCTGATCTCTCATTCTGTTCTGGGGACAGTTAGCAGCGTAGTGGTCCCACTGCAGCAA
AAGTTTGAAATTCATTTTCTTCAGGAAAATACCCAGCCAGTCTCTCAGTGGAAACCCTGG
TTATGTCGTGGGGCTCCATTAGCTGCTGGATTCCAGCCTCATAAGGGTGGAGCTCTCCC
GTGTCAGCTCGTAGCACAGAAGGTGAAGAGCCTGCTGTGGGGCCAGTGCTTCCAGATTAC
GTGGCCCCCTTTTGAAATTCACAGGCCAGGACATGCTGGACTGGGTGCCCATCCACTTC
ATCACCCAGTCATTCACAGGAAGGATTCCTGCCAGCTCCCAGGGGCTTTGGTTATAGAA
GTGAAGTGGACTAAATACGGATCCCTGCTGAATCCACAGGCCAAAATAGTCAATGTAAT
GCAAATCTAATTTATCTTTCTTTCTTTGAGGCCAACTCAGGAAATGAAAGGGCGATTCTT
ATTTNCACTGGNGGTACNTTTGNGGATGTGTCTGCACCTGCAGANGCAGGCTTTAAAGCT
TCANCAGNCATTAATGGCANGCTGGCCNTTAACCTT

[illegible]

TABLE 1

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TTNNAAAAAAANTTTNAANGGGGG
AAAAAAANNGGNAAAAAANTTNNGGGGNNNGGNTTNAAAAAAANCCCCNNNNNCNN
AAAAAAANNGGNCCCCCGGGGGGGGNNAANNTTNAAAAAAANTTTNTNCCCCCCCCC
CCCCGGGGGGGGGNCCCCCCCCNNNTTTTTNNNNNTTNANNGGGGGGAAAAANNNNCCC
NGGGGGAAAAAAANNAAAAAATTTTTCCGGGGGAAAAANNTTCCCCCCCCAAAAA
TCCCCAAAAAAANNGGNNGGGGNAAAAAAANAAACNGGGGGNCCCAAAGGGGGG
CCANCCNAAANTTTGGGGGGGNNNNNACGCCCTTTTAAANNANAAAAACNTNNGCC
CCNTTTAAAAAAAACCCCCCCCCCGGGGGNGGGGGGTTTCCNAAAGGGCCCCCTTC
CCCTTCAAAAAAAGGGGGAGNGNNNGGGGGGGGGGGGGGGGTTTTTTCC
AANANAAGGGGGGNTANTNTTACCAAAAAAANGGGGGAACCCNCAAAAAATTTT
TNAAAAAGGCCNAANGGCCAANCCNAAAAAGGGCNGGGGGNGGGGTTTAAANAAA
GNCCCCCCCCCGNGANAAAAAA

Sequence 2364

CCGCGGTGGCGGCCCGAGGTCTTCGACCCACGCGTCCGCACTGAGTGTTACCATAATTT
GAGATTCTTGGCATGTAACTTTTCATTATGGAATATTGAATAATTTCAATATTATTCAT
ACATTTCTTTATGTTCAAACATACAAAAATAGAATAATGAAGTCTACCCATCACCAG
CTGCAACAAATATCAATACTTTACCGTTCTTAATACATCTAACCCTTACTTTTTGTTG
TTTCTTTGGTGAAGTATTTAATTGTAATTTTTTTTAAAGAGACAGGATCTCACTCTGTC
ACCCAGGCCAGAGTGCAGTGGTACCTGCCCG

Sequence 2365

CGCACTTTTTTTTTTTTTTTTTTAATAACAAACACTTATCCAACACTTAGTATGTGGCA
GGCACTGTTTCAAGCACTTTACACATACAACTCATCCCGGACGCNTGGGTNNAAGCTNG
TNCACCNA

Sequence 2366

CCGCGGTGGCGGCCCGAGGTCAAGCTTCGACCCACGCGTCCGGATTATTTAGCTCTTGA
CCTGTCCCCTCTGGCTGCCTCTGAGTCTGAATCTCCAAAGAGAGAAACCAATTTCTAAG
AGGACTGGATTGCAGAAGACTCGGGGACAACATTTGTCCAAGATCTTAAATGTTATATTG
ATAACCATGCTCAGCAATGAGCTATTAGATTCATTTTGGGAAATCTCCATAATTTCAATT
TGTAACCTTTGTTAAGACCTGTCTACATTGTTATATGTGTGTGACTTGAGTAATGTTATC
AACGTTTTGTAAATATTTACTATGTTTTCTATTAGCTAAATCCAACAATTTTGTACC
TGCCCGGGCGGCCCGGCCCGGGCAGGTACCCTAATAAAGGCAGCAAAATGCATTAATC
CACTATGAATGGAGTTTACATTTAATTTATGCCTAATATTTATAAAGAATTTCAATC
ATAGGCTACTCACAGTTGTTATCTGACGCTTACAGAAGTGGTAAACAACCAATTGCTAGT
TCAAGTAGTTTCTCATGACATCTAATGGTAAGCAAAAAATTAGTATGCATATTTCAACAT
CCCAGTNACCAATCTTTTAAATGGA

Sequence 2367

CGAGGTGTCAAGCTTCGACCCACGCGTCCCGACTTTTTGTCTTAGACCCAGTTAGGGTCA
CCTTACAGTGCAGGTGAAAGAAAGCAGGACTGCTGAGAGGAGCTCAGGACCCATTTTCC
AGGACTATTGCTTCTCAAACTTTGGAGAGCAGGAAAATAGATTCCCAAGTGAAAGAGGT
GGCAGAANTAAAAAAGT

Sequence 2368

CGCCCGGCAGGTACACAGTTCTGACTGCAATACCTTTTTCAGACTGCAAAGGGAGCTCAG
GATCCAGAAGTCATTAAGAAGACGGACGCGTGGGTGCAAGCTTGACCT

Sequence 2369

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTCAAGCTTCGACCCACGCGT
CCGCAGAAATACTGAAAGACTTTTGCCTAAAGTGGCATTATTGACTGCTGGTGTGATGCT
ACTGTAATGTGATAAATTATTAATTGTTGCAAGTGCAAAAAAAGTGA
CCTGCCGCGGC

Sequence 2370

CGCACTTTTTTTTTTTTTTTTTTTTTTTTTTAAAAAAGCCTCATTATCCTG
TAGTCCATTTTGAAAGTAAAGCCCAAGAAAGCAAAAGATGAAGGTTCTAAAGCTAGTTT

GACTGACCTCAGAGTCCTCGGCCGCTCTAG

TTCTGTGATAACTTCTCCTAAGTGCCAGGCATTGTATTACATGCTGNGAGCACANAGATGA
ATAATANCAATAGGTTACANAAAAAGATGAATTGATTGAGAGAAAAAGA

CGAGGTACCCAAAAGATATCACTGTGAAGGTTTGGATACACTGACTGAGGAAAAAAGAAG
GTCCTGAAAGCGTCTAGACAAAAAAGACTACTTGTAAGTTGCAAGAATCAGAATGGCAT
TGGACTTCTCAGCTTTCCTCATTAGAAGTTAGATCTGAAGCAATCTTTAAACTCGTGAGG
AAAATTAAGTCTAATAAATAATTTTCTTCTTAGCCAAACAATCAAATGTGAAGCTAGAAT
AAGCATTTTCAGGTAAAAAAGTGC GGCCGGCCGGCCGGGCAGGTACA
TAATATACAGAGGTATAATCTGTAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGGA
AAAGGAGTAGAATGCTTGATGTGACTAAAAATTATGTTGGTATCAGTTTAAAAATATTA
TTATAACTTTAGAATGCTATACCCATTCCACAGTAATCCCATAGTAACCAAAAAGAAA
ATATCTGTAGGATCACACAAAAGAAAATCAGAAGTAGATGCAAACCTTGCTACTACAGGAA
AAAAAAA

CGAGGTGTACAAGCTTCGACCCACGCGTCCGAAGAAGGCTCTCCTCTGTTCCAGGAGAAG
GAAGGGACAGATGAGAAAGTCACTTCAAGTTCCCAGAATACTCAGGAGCTGAACCTGTCAA
GGTTTAGATGTGGCAAAGCAGGCCAGGCATGGTGACTCATGCATGTAATCCCAGCATT
GGGAGGCCAAGGCAGGAGGATCACTTGAGCCCAGGAGTTTGAAGCAGCCCCGGGCAACAT
AGTGA AACCTCATCTCTAGAAAAAATACAAAAAATTAGCCAGGCGTGTTGGTGTACCTG
CCCG

CGCGGTGGCGGCCCGAGGTACATCTGCAAGCTTTAAAGCAGTAGGTTCCAGACTTCCTGGA
AGAACTGACACTTGAAGCTGACTAGGGNCTACTTGANCNCATACTCACTTTGGCTAAGCC
ACAGTATGAGGGAAGGGTGTGAGGAATAACNCTTCCATTTTTATNTTGTTCATTCCC
AATCCAACAGGAGATTCTTTCACTCCCTAAAATNAACTGNTCTGTGTATAAAGCATATC
TGGATATCTTGATCTTAAATGGAAATGGTATNTGAAAAANNGCNCNACTTTTCTAAA
TTAAATTGGCCCTTTTTTATTTTTAGCCCTGGGGGAGGAGGGAGGGAATGATTCCCAA
AACTGACTGGTTTCCTTGNTGCAGTGTATTAATTACTGGTGATTATTTTTGGGGGGG
NAATTTAGCNGGAAAAAATTTTTTTTTCAGGGTTAAACGCGCCTNNTAAAAANTTGGGA
AATGGNCGNAAAAGGGGGGCCCTTTTTTTCCCCGCGGNTTTGGGGGNAACCCCCGCCCCG
TTTGAANGGNTNAACNCCCTTTNAAAAAANAAAAAATTTGNTTCAAGGTTTTTTTTTCC
AAAAACGAAAAAATTTGGGAAGTCTTTTTATATAAANCTTGGAAACCCGCCCCGGGGTC
AAAAACCCCCGNNNGGCGGTTTTAAAAAATGATACCCCGCCNTCCGGNTTTCANAATT
AAACTTTTTNCCCCNNCNCCTGGGGGGGGCC

CTACTATAGGGCGCAATTGGGAGCTCCCCGCGGTGGGCGGCCCGAGGTCTTCGACCCACGC
GTCCCCGAGAATAGCTACTGAAGTCTAAAGAGCAAGCCTAACTCAAGCCATTGGCACACA
GGCATTAGACAGAAAGCTGGAAGTTGAAATGGTGGAGTCCAACCTTGCTGGCCAGCTTAA
TGGTTCTGTCTGGTAACGTTTTATCCATGGATGACTTGCTTGGGTAAGGACATGAAGAC
AGTTCCTGTCTATACCTTTTAAAGGTATGGAGAGTCGGCTTGACTACACTGTGTGGAGCAA
GTTTTAAAGAAGCAAAGGACTCAGAATTCATGATTGAAGAAATGCAGGCAGACCTGTTAT
CCTAAACTAGGGTTTTTACCTGCCCGGGCGGCCGGCCGCCCGGGCAGGTACCCAAACAAA
ACTATTCAATAAAGTAATCTGCTTTAAAAATAAAACACACTGAAAGGCCCAGGCAGGTGG
ATCACCTGACATCATTAGTTC AAGACCAAGTGTGGCCAAACTGGTGAAAAATTAGTCTCGAC
TAAAAATCAAAACATTAGCTGGCGTGGTGGCAGGCGCCTNTAATTCACTACTCAGGAGG
ATGAGGCAGGAGAATCACTTGAGGCCAGGAGGTGGAATTCAGTGCAGCTNAAATCGTCC
ATTGCACTTGAACCTGGCAACAAAATGGGGACTCCGTTNAAAAACCCCCCCCCA

CCGCGGTGGCGGCCGAGGTATCACGAGCGGCCGGCCGCCCGGGCAGGTCAATCATAGAGC

TABLE 1

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TGCCCCAACATCTAGACAGTCTCTCCTACTGATTATAAATGAGTGAAAACCTATCAGTTAG
AAAAATCTAATTTAAGTTGTTAATACATGTTTCTTTGGTGAGCACCTGGATATATTTATC
ACAAATTCCTTTATACAAATGTCGAAAATGGCTTTCAACAAACCTAAGTGTCTAATTAC
ATGCCACTTTTAAGCATCNNTTTAAGGGTAACCAAAAATGGAAACCCTTATTTTNAATTA
AAATTTNGGGNCCCGGGTNTTAAANNACTNTGGCCNTTTTNAATNTGGGGNCC
CCCCGNGNGGGGNAAATTTTTTATATAAATTTTTTTTNNCCCCCCCCCCCCCTGGGGG
GGGNGCCCCCCCCCNTTTTTTTTTTTTTTTTTNNGGGGGGANNAAACTCNNCNCG
GGGGATAANANANGGATAATNTTTTTTNTTNGGAAATNTTTTTTTTTN

Sequence 2377

GCGAATTGGAGCTCNCOCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTAAAG
CACTGGTGCTCTTCTTAAGTGAATGTTAACACAGGGCTCAATACATAAAAGAGAAAGTG
AAGTTGTTCCATTTGGGGGGTCCCATAGGGGCCTCATGTTCCCTAGGTGTTACCCCTT
CAGACACAGCACATGCCTACAAAGNGGACNCGTGGGGTCAAGCACCTGCCCG

Sequence 2378

CTATAGGGCGAATTGGAGCTCCCCGCGCGCGCGCGGAGGTCAAGCTTCGACCCACGCGT
CCGGTCTATTTGATTNTGGGGGGTNATCAGCATTATTCTTCAGAAGGGGACCTGTTTT
TTCAAGGGAAGAAACACTCTTATCCCAAACACAGAATAATGTGTNAAACATGCTAAAT
AGTTCTATCAGGAAAACAAANCACTGTNTTATCTCCGNAGGCTATTTGNTCAGAGAGGC
CTTTGNTTAAATATAAATGTTTAAATATAAATGTTTGTCTGGATTGGCTATAACATGTC
TTTCAGCATTAGGCTTTTAAAGAAACACAGGGTNTTGTATTCTTTACTAAAGATATCAGA
GCTNTTAATGTTGNTTANATGAGGGNGANTGTNAAGTACCTGCCCGGGCGCGCGCGCCG
CGGNCAGGTCTTNGACCCACGCGTNCGGGCNATTATCAAAACACTTGGAAAAAGATTTT
TATTCCTACTTTTAAACATACATCAAAATCTAAAAATAAACTA

Sequence 2379

CCGGGCAGGTCTTCGACCCACGCGTCCGATTGAAGCCTCTCTGAAGTTAAACCCAACTAT
GTTTATTAAATGTGTGAAACTGAAAGTGGGCTAGGTTCTACCAAGGCTGTGGAACCTCTC
CTACGAGTTCTGCTGATCAGGAAATTTAAGAATTTATCTTAAAAATGCAAGGAAAAAAGA
CTGCCTTGGCAATTGTGAATGCTGCTTTCAATCTCCTAGCACCGAGCCTGGCACTTAGGC
AGCTTTAGTAAGTGGGTGAATGAATGACTGAATGAATGAATGAATGGCTCAGCTGAGGA
ATGTAACCTTGGTCAAGACCT

Sequence 2380

CCCCGGCGGGTTGGGCCGGGCCCCCGCCCCGGGGCCCCGGGTACCATTAAATTATTACCAG
GAGGTTNTTAATTCTGGTTAACCATTCATTAATTGNTNAAAAGGTGGGGGGNAANGGG
CCAAAGGGTGGGGAA

Sequence 2381

TGGGAGCTCCACCGCGGGTGGGGNCCCGGGGGNCCCNCCCGGGNNNNAAANAAANGGG
GGGNNTTTTTNNNNNAAAAACCCCTTTTTNNNNNNCCCNNTTTTTTTNGGGAGTTG
GGGCCCCCTTGAAAAGTTTGGGAACCCCCCCCCCAANTTTTCCCTTTAATTGGGAAAAT
TTTTGGGTTTTTAAATTTTTAAAAAGGGGTTNGGGCCCCCAAAAAAAAAAAAAAAAAA
AATTTTTAAATTTTTAAATTTTTAAAAAAGGGGCCTTTTTGGGGGNTTTTTTTTTTTT
TTTGGGGAAAAAAA

Sequence 2382

AAACTTTTTATTAATGCTTANGANACAGATTGACTTTCTTCGCAAATGACTGTTTTA
CTTTTCTGAAGNAGGACATATGCACTCTGATAAACTGCATTACAGCCTGCAGGACA
CCTTGGGCCAGCTTGGTTTTACTCTAGATTTCACTGGCGTCCCACCCCACTTCTCCACC
CACTTTTTCTTCACCAACATGCAAGTTCTTTCTTCCCTGCCAGCCAGATAGATAGAC
ACGGACGCGTGGGTCNAAGCTTGACCTGCCCGGGCGGNCGCTCTAGAACTAGAGGATCC
C

Sequence 2383

AGGTGCGGCCCGGCCCGGGCAGGTACAAGCTTCGACCCACGCGTCCGCACAAACATTT
TTTCAATGTAGCAAAATCAAACTTAAAAAAAAAAAAAGAAGAAAAGAAGATGCCGAC

TABLE 1
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AGTGCGGAGTCTAGCCTTTTGTAAACTTCATATTGCACACTAGGACTATAAGCCATTGCT
AGCTCATTTTGAATTTTAACGTGTAATTTTGTATTTTCTTTCTGTGGGGAACAAT
GCTTGATCCACCAATGCTCTTTTAATGTTTATAACTATGTATGTATATATATAAAT
ATCAAATAATATGTATGCACATATGTGTGTATATATCTATATGTATATACATA

Sequence 2384

TGGAGCTCCACCGCGGTGGCCCCGGGCAGGTCGAGCGACCGCACTTTTTTTTTTTTTT
TTTACCTGAAAATGCTTATTCTAGCTTCACATTTGATTGTTTGGCTAAGAAGAAAATTAT
TTATTAGACTTAATTTTCCTCACGAGTTAAAGATTGCTTCAGATCTTAACTTCTAATG
AGGAAAGCTGAGAAGTCCAATGCCATTCTGATTCTTGCAACTTACAAGTAGTCTTTTTT
GTCTAGACGCTTTCAGGACCTTCTTTTTTCTCAGTCAGTGTATCCAAACCTTCACAGTG
ATATCTTTTGGGTACCTCGGCCGCTCTAGAACTAGTGGGATCCCCGGGCTGCAGG

Sequence 2385

AGGTAATCATAGCATTTTTCCCCACATAGTCTTTCAAAATCTGCATTTATTTCAAAATCT
GACCTTCATAACTCAACTATACATGAATTGCTGGTATTGTCTTTAACTTGGCCAAAGAA
CAGTTTTCTGAGTTAGCTATTATTTCCACCATAAAATTGGGGTAAGATTTGGCAAAAAA
AAAAAAAAAAAAAGTGC GGCCGCTCTAGAACTAGTG

Sequence 2386

AGGTAATACCATTTTAATTACACAGTAAACAGAAGCACGGGTAAGTGACATACTCATAC
TTTAAGCAATAAGAATTAGAAGAAACCATAGAAGCTTGGGGCCTTCTCTCTAGCTCTAAC
CCAAAGAAAATGAATTTTATTTTTTTTTTTTAAAGAAAACAGCATCAATCACTTAAGAT
TTTCTTCTCTTTTTTTTTTTTTTTTACACTTGCTTATTAGTATAGNATCTCGTTCCAA
AGCCCGGACGCGTGGGTCTGAAGCTTGACACCTGCCCG

Sequence 2387

AATTGGAGCCTCCACCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCCACGCGT
CCGTCTTATTTTTACTCTTAGGCAATGCGGAATATCAATCCCAGCACAGCAAATTCTCC
AAAATGTCAGGTAGGCTCTTATCTGATGTTTTAGCACTGGAAAAAAAAAAAAAAAAAAAA
AAGTGCGGGCCGACCT

Sequence 2388

CGGCCGAGGTCTTCGACCCACGCGTCCGAAATGACTGGTTATTTAGAAAAGAAGGATGTT
TAGAATAAAACAGGAAGTCCAAACATGTCATAAGTGGTTTGTGTATGTCATAATAAGGGA
TTATAAAAAGAGGATTTATGTGAAAAAATTTATGTGATCAAGTTGTCTACAATTACAA
GGAAATTATTTATAATAGACGTTCTAGAGATCTATTTAAAAAAAAAAAAAAAAAAAAAA
CTGCCCGGG

Sequence 2389

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCC
ACGCGTCCGTCTGAACCTACACCCCGTCTCTTCACGGTTTAGACTTACTAAAAATAAATAC
AAGGTGATTTTCATCTTCAGGTAGAGTGAAGCCTTTTAATTAAGGCGTCACAGGTGCAGC
TATTCTACCTTAATGAAATGGGTAGTGATTTTCCACCATTATTTATTTCCGGTGATAATA
TGCTGCATATTCAAGTCTCTGTAGTTATTTTCACCCAAAGTAGTTGACAATTTGATGCT
TCTGGTGATGTTTATGGCTTCATTTATGTAATTTTTTAAGTAAGTTCCACTAGAAACAG
TTCATCTTATACCTTCAAAA

Sequence 2390

AGGTAATATAAGAACACATTAATTCAATGGAAATACACTTTGCTAATATTTTAATGGTAT
AGATCTGCTAATGAATTCTCTTAAAAACATACTGTATTCTGTTGCTGTGTGTTTCATTTT
AAATTGAGCATTAAAGGGAATGCAGCATTTAAATCAGAACTCTGCCAATGCTTTTATCTAG
AGGCGTGTTTGCCATTTTGTCTTATATGAAATTTCTGNCCCAAGAAAGGCAGGATTACA
TCTTTTTTTTTTTTAGCAGTTTGAGTTGGNGTAGGGGTATTCTTGGGTTATCAGAATAC
TCATATAGCTTTGGGATTTTGA

Sequence 2391

GTTGATTTTCTTATTCTACAACAAGGGTCAGCCTACAGGCAAAACACATCCCATTGTCA
TTTTTTGTAAATAAAGTTGTATTGGAACATGGCCACTCTCATTTGNTTCTATTATTTA

TABLE 1

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TGGCTGCTTTCACTTACAACCTGAGTGGNTGCCACAGAACTGTATGGGCCTGCAAAGTC
TAAAATATTTACTATGTAGCTTTTTCTTTCTTTTGGAGACAGTNTGCCACTCTATTGC
CCAGGCTGGGAGTGCGGTGGTGTGATCATGGGCTCATTGCAGCCTCAAACTCCTGGGCT
NAAGCAATCCTCCCGCTCGGTCTCCAAGTAGTTGGGACTACAGGCATGA

Sequence 2392

CCGGGCAGGTACCCAGTAATCACATAAATTCTGCAATCATCTGTTTATTTAGCTTAACTG
TTTTTTTTTATTTGNTGAAGNTGTTGTTGTTATTTAGNCTTTTTCTTATTGGG

Sequence 2393

ACCGCGGTGGCGGNCGCCCGGNCAGGTCTAGCTTAGTCGACCCACGCGTCCGGGCTTAAC
TAATATTTGNNTGNGTGCTACTAACAGGATTATAATAAATTTGTATCATGAAAAA
AAAAAAAAAAAAAGTGCGGNCGNTCTANNACTAGTGGGAT

Sequence 2394

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGATTTAGGTTGACTTTTCTCACCTTTAA
CCTCTTTATATAGCACAGTGCAATCTGGCCCTACTGCCACTTCATCTGGGTTATCTGTAG
CTTGAGTTGTAAAAAAGT

Sequence 2395

AGGTACTGTTGTCTCATGTAATGCTAAAACTGAAATGGTCCGTGTTTGCATTGTAAAAA
TGATGTGTGAAATAGAATGAGTGCTATGGTGTGAAAACTGCAGTGTCCGTTATGAGTGC
CAAAATCTGTCTTGAAGGCAGCTACACTTTGAAGTGGTCTTTGAATACTTTAATAAAT
TTATTTTGATAAATAATTTGAAAAAAGTGGCCTCGAGCGGCCGCC
CGGGCAGGTACAGGCACCTATAGAATTTAAAGGGGAGATTTCTTTATTTGTATTCAATG
TATTAATAAGATTTTAAACATATTTGGAGAAATTGCTAAT

Sequence 2396

AGGTCTAGCTTGAGTCGACCCACGCGTCCGATTTTTGCCTCCAGACTACAGATCAGAAA
ACTGAGACTCAGAATGTTTCAATTCCTTGTTAAGATCACAAAAGTATTTGAGGTATAA
TGGAACTGAAAAAANGT

Sequence 2397

AGGTCAAGCTTCGACCCACGCGTNCGGAAGTNTTCATTCTCCCTCTTTTTTTTTTTTTT
TTAGCAATTCAGNCATGTTTTGNCTACAAGTTTTCCAGTATTGTATAGATAAATAAT
AATTTACNAGGCTGCCTTTGAGTATACTTAGACAAGAGACCTGCCCGGGCGGCCGNTCTA
GNACTNGGTGGANCCCCGGGCTGCCAGGNATTTCAATATNAAGNCTTATNGTTACCGN
GCGACCTACGAGGGGGGGG

Sequence 2398

CGGCCGCCCGGGCAGGTATCAAGTGCTTGGATTCTGAACTGNCAAAAGAAAAGTGCCTT
GCCCTCTGAAGTAAAAACCGAAATGAGNTTCTTAGGCAAATGTATTCATCAGCCAGAT
AAAAAAAAAACCANNTAATGNGAGCCNTTAGTCACTGCT

Sequence 2399

AGGTACAAGCTTCGACCCACGCGTCCGATACGACTCACTATAGGGATCTACCTGCTTGAG
TCGACCCACGCGTCCGAACACATACAAAAGAATTAACCCACAAGCTGCCTCTGACAGCA
GCCTGTGAGGGAGTGAGAACACCTGGCCGGGTACCCCTGTGACCCTCTCACTTTGGTTG
GAACTTTAGGGGGTGGGAGGGGGCGTTGGATTTAAAAATGCCAAACTTACCTATAAAT
AAGAAGAGTTTTTATTACA

Sequence 2400

AGGTGGCCGCACTTTTTTTTTTTTTTTTTTAAAGTTTGGGGTCTGTCAGGAGACAGA
GGCTTTTTGAATTCAGTGTGAAGAGAAGAACCCGAACCTTAAGACGGCAGATCCCTGAG
AGTCTTTCTGGCTGGTTTGAGCGGACGCGTGGGTCGACACCTGCCCC

Sequence 2401

AGGTACTTCAAAGTTATTTGCACATACACTTGTTTACTTTGNATGTTTTGCAGGATTA
CTTTGTATAATCTTTTGCAAAATTTTTTTTTCAGTATGCAANGCTTGCAAGATGAAAT
TAAACC

Sequence 2402

ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGGNGGGGAGGAAGGCAAGGCACCTGGA
AAGACTNACAACANATATTGACCCTAGTCGTAAGAAATCCATAATTGCCAGTAACACGA
CNTATTTAAGAACAGGAAAAGACNGACAAGGAAAAGAGGGACTTTTTTTAAAAAACATTA

TABLE 1
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CTAAAGAATTNGGACATAANAAGAGTGAAATTGACAAGGAAAGGAGGAGGGGGA

Sequence 2411

GAGCTCCACCGCGGTGGCTGGCCGCCCGGGCAGGTACATAATATACAGAGGTATAATCTG
TAACATCAATAATGTAAAGTGGGGAAGGGCAAGGTGAAAAAGGAGTAGAATGCTTGTATG
TGACTAAAATTATGTTGGTATCAGTTTAAAATATATTATTATAACTTTAGAATGCTATAC
CCATTCCCACAGTAATTCCCATAGNAACCAAAAAGAAAATATCTTGTNGNATACACACAA
AAGAAAATCAGAAGTAGATGCAAACTTGTCACTACAGGAAAAAAAAGCTATCAAAATAG
AAACAATNATGGNGAAAAATAAGACA

Sequence 2412

CCGGGCAGGTGCCGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTATGGAAAAATATT
GTGATTATTTTAATAGATTTACGGTATAAAAGAAAACTTTTATGATNCAATTTGACA
GACTACTTTTCAAAAAATTTTACTNTACATACAATGTATTGCAAATTTTNGGCAAC

Sequence 2413

NGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCGACCCACGCGTCCGATTTT
GTGAGAATGATTGTTCTTTCACTTGGGCTGTTTGAGAGCATAATTATGGTAATCATGAGA
TTAATGTTTCATGATTTCTACCTCCAAAGTGTGAAGACAAGTNAAACAATGNTTCTAAAT
TGTCTTATTTTGTGGCGGAGAAGATTACAATGGGCTATTAGTGCTACATTTGGTCAAAT
GTAATCACTTAAATAGCTTCTTGTACCTTAACTAAAGCAGAATAAAAAACCCTGCCCC
GGGGCGGCCGCGNCCCGCCCCGGGCAGGTACCATTCCCGACGTTTGCAATGGTGGGAGTTG
GCAGGTGTG

Sequence 2414

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGCTTCGACCCACGCG
TCCGCTTCTCTTAGAATTTTGGGGAAATTGATAGTCCAGTGACTCCTACCCACTTTTGGG
TGAAGGACGATTTGGAATTTTGAAGTGTGGGGAGACAGGCCTGTGAAGTCCGAANGACTC
ACTTGGGGT

Sequence 2415

CCGGGCAGGTCAAGCTTCGACCCACGCGTCCGAAAAAAAAAAAAAAAAAGTTTGTGGAGA
CCGACTGGGGGTGAGGGGCTGGCAGCAGGAGACAGATAACANGTTCNCTCAGAATGCAGA
GT

Sequence 2416

ANGTTTTTTTTTTTTTTTTCANTGCTTCCCAAAGCTGCGGACATAAGGGTAGCTGANCTG
GACTCTGNCCCTTGCTGAAGACTTGGAGATGTCTGAAGTCATAACTGGGGNGACCTCCTTG
GTCCAAATGTGCTGCCCCCTATGAATCCACATCAGGAGTTGTAGGAGATGAGGTTAGA
GGGATGCTTGGGCTCATCTGGCTTCTTCAGCATAGCCCGGACGCGTGGTCTGAAGCTTG
ACCTGCCCGGGCGGCCGCGCACTTTTTTTTTTTTTTTTTTTTTT

Sequence 2417

CCGGGCAGGTTTTCTTATGAGTGGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGAGT
GGGAGGTGACTGATCGTGGAGGTGGATTTCTTATGAGTGGGAGGTGACTGATCGTGGAGG
TGGATTTCTTATGATTGGCTTATCACCATCCCTCCTTGGTGCTGTTTTGCAACAGTGAG
TGATTTCTTGTGAGATCCGGTTGTTTAAATCCAGAGGCACCTNCCCCTACCTCTAGCTC
CCATTCCTGCCATGTAAGACACCTGCTCCCCCTTTTTCTTACCCCATGATTGGAAGCTTT
CTGAGGCCTCCCCAGAAGCTGATGCCAGCCCTATGCTTNCT

Sequence 2418

CCGGGCAGGTCTTCGACCCACGCGTCCGCACATTTTGATGGTCAGTCAATAACTTAAGCA
GNTACCAAAATACTAGGTATCCAAGGAGCGAGAGGTGGGCCGAGCATAAGAAACACATTT
CTNATGGCAGCTCTGCCAAAGCCCTGCAGAATCATTTACACATAGGTCTTTGGTTAGT
AGCCCCGTGGCAGAGAANTCTGATCTTAAACAAATATTGTCTATAATCAAGTAGAGCAATG
CAATTAATAAAAAAAAAAGCACAGGNTTTTGGGGCCATNGCTGAAATCCCAGCCTTGCTA
TTTTGCTTGGCTGNGTGACCGGGGTTTCT

Sequence 2419

AGGTGTACAAGCTTCGACCCACGCGTCCGGGATGAGTTTGTATGTGTAAAGTGCTTGAAA

TABLE 1
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CAGTGCCTGCCACATACTAAGTGTGGATAAGTGTGTTATTAAAAAAAAAAAAAAAAAA
AAAGTTGCGGCNCGCCGCGCCGNCAGGTACTGGCGTGGATTCTGCATANTGGNGATCAC
ACGTTCCACCTCATCCTCAGTGAGTTCTCCCGCCCTCTTGGAGAGGTCAATGTATGCTTT
CNCTCAACACCACATGAGCATATCTTCGGCCACACCCTTAATGGGCAGTGATGGCAA
GGCTATTTTCCGCCG

Sequence 2420

AGGTATTCAACAAGGGCCCTGAGAGAGGGACAGGCAGCCCCTGTGAATCTTGCTGTTCAG
CANAGACAGGANTCAGCACGTGTGAGGGCAGCAGGGAAGTCTTCCTGGAGGAGTGAGACC
TGGCGATGAGGAGGCACGGCAGGGAGGTGGAACAGGCAGGAGAGACTCTTCANGAATTGA
GGAGATAGAATAGAGGACACTAAAGCCTTAGAGAGGCCAGGGGTGGTGGCTTGGCAGGAN
CATCGCTTGAGGCTAGGAGTTTAAAGCAAGCCTGGGCAACATATCCGAGACCCCATCT
CTAAACACAAAAATAAAAAA

Sequence 2421

CCGGGCAGGTACCCAGTAATCACATAAATTCTGCAATCATCTGTTTATTTAGCTTAACTG
TTTTTTTATTNGTTGAAGNTGTTGTTGTNATTTTCAGTCTTTTTCTTATTGGGGTTGAC
CAGACTTGGGTAAAATCTGTAAGAAAAGTNCCATAATTATGGGGGGAAGATTTCTCTTG
AATTGGCTTAAATNCCTGTTAGCTGAAAAAAAAAAAAAAAAAAAAA

Sequence 2422

CCGGGCAGGTCTTNGACCCACGCGTCCGAGCAAAATTCAACTAAAAATACAATCTGGATT
CCATAGCCAAGGGTTTTATTTACAATNTCCTAGTAGGAAGTCTTTATTTAGCTTTCAAT
GTGTTGAACTTATAAGGAAATTTAACGTATACATGAGTATTATTTATGGAATGTGAAG
ATATACAGAATGGAAATGGAAAATAATGTTAATTCGTATTGACTTTGAGGAATCTTANAA
TCATGTAGCCCTGTTGCAACAAGAAATAGGGAACCTTCTGAA

Sequence 2423

AGGTCAAGCTTCGACCCACGCGTCCGGTTTTGTTTTTTCTTACGGCAACTCAAAGCAAAG
AGCTGGAGGAGCCAGCCATTATAATTGCTTACTCTCATCGCTTAGCGCCCCAGGTGGGAT
GTGTTTCCAAAACACATTTTGTATTTATAAGGAAATGTAGTTAGGATTAATTTATTGT
CCTAATTAGAACTCACATTTTGGTTAAATCCTCAATTTCAATTAATAAAAAAAAAAAAAA
AAGTGCGGCCGCGCTCGACCTCGGC

Sequence 2424

AGGTGCTTCGACCCACGCGTCCGACTTAATTGAGAAGGTGGAATCCTCCTATCCCTGAAC
TCGGGGGAATGGAATCTCGCTGATCTTCAGGACTAGCTCCCTGATCATTCCAGCCCTC
TGAACAACAGGGCCCCTGGAGATAGAAGTAGTCCTATTTACCCCCAACTACAACATTAAT
GGGAAAAAAGAAGCAGGAATTCCTGAATTTTATGACTATGACGTTGCCCTGATCAAGCTC
AAGAATAAGCTGAAATATGGCCAGACTATCAGGCCCATTTGTCTCCCCTGCACCGAGGGA
ACAACCTGAGCTTTGAGGCTTCCTCCAACCTACCACTTGCCAGCA

Sequence 2425

AGGTACAACCTTCTCTTTTTGGAGTTTTACTTGCTTCTATCAAGAAAGACAATTTTCCTG
TTTCCATGACGTTGGAGTTTGGCTCACTTCCAACAGGGAAAAGGAGTGTTTTTTTTGTT
TTGTTTTGTTTTCTGCTTCTTGAATGGTAGAGAGCAGTCTATAGCCAGAGACTCGTCC
CTAGGTAAGTAACTGAATTGGGGTTTGTCTTGGTTAAAGTTAAGATTAACGACCAACTGG
TCTTAATTTCTCCTTACCATTAGAGCACTCAGTTATCATATAAATTGCGCCATTGTTTG
TTTGCCTAA

Sequence 2426

AGGTCAACCGCCAGGGTCAAACGGAACACAACCCACTCTCAGGAAGACATCCCTAACACA
AATCCAGGGACTTTGTTTCTTAACCTTAAATTTGAAACACTTCTTGCTACCGGGATGG
GGGGTGGGGCTCAGCAGTTTGGGGAAACGGAGTGGGAGTCTTTTGCTGAACCGGACGCGT
GGGTGCAAGCTGGACCTGCCCGGGCGCGCGGCGCACTTTTTTTTTTTTTTTTTTGGAG
AGTGGCTATTTCAATTAANATTTAATAGTTTTTTTGGACTAAGTAGTGAAAACTTTTA
TACTTAAGTGAACATTTGTCAAGGCTAAAAAAGT

Sequence 2427

TABLE 1

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AGGTACATCCCACTATTTCTTTCTTTTAGCTAGAAAGGTATAACGTTAAAACCCCTTTTA
CCAAATAAAATGATTTTATTTAGAAAATGCCGGGCACTAAAAAAAAAAAAAAAAAAAAA
AAGTAC

Sequence 2428

CCGCGGTGGCGGCCGAGGTACCTATTTTGTATATGTGAGATGTTTAAATAAATTGTGAAA
AAAATGAAATAAAGCATGTTTGGTTTTCCAAAAAAAAAAAAAAAAAAAAAGTGCGGCCGGC
CGCTACCTGCCCGGGCT

Sequence 2429

AGGACAATGCTGTAGATAATGCAGCCCATGCAATACACCCAAGAACACTAGAGTCCTACA
CCCAAGTACAATATGATAAGCAGCCCTCTGCAAGTGGTGCTGGATACCACTAAGAAGTC
TACTGCAGCCATGTTGGTTATGATTTTCCATGCAGAAGGGTACAGTTAGTTCATATTTAT
GTATTGCACATAATCATGCTATTGAGCATTGATGCTATATTGTATTATGTAAATAATAAA
AGCCATGTACAGAGGGAAAAAAAAAAAAAAAAAAAAA

Sequence 2430

CCGCGGTGGCGGCCGAGGTATTCGACCCACGCGTCCGTAGTTTTTATCTTTGACCAACCG
AACATGACCAAAACCAAAAGTGCAATCAACCTTACCAAAAAAAAAAAAAAAAAAAAAA
AGTGCGGCCGNTCTAGAACTAGTTGGATCCCCCGGGCTGGAGGAATTC

Sequence 2431

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTGAGTCGACCCACGCG
TCCGAGTCAAGAGAACAGCACATTAGTTCCAGAAGAAAGATGGAAATTCTGAAAACCTGAA
TGTCAAGAAAAGGAGTCAAGAACAATTCACAGTATGAGAAGAAAAATGGAAAAAAAAACT
TTATTTAAAAAAGAAAAAGTCCAGATTGTAGTTATACTTTTGCTTGTTTTTCAGTTTCC

Sequence 2432

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCTGTTGCTATTTCTTATTCT
ACAACAAGGGTCAGCCTACAGGCAAAACACATCCCATTGTCTTTTTTTGTAAATAAAGT
TGTATTGGAACATGGCCACTCTCATTTGTTTTCTATTATTTATGGCTGCTTTCACCTACA
ACCTGAGTGGTTGCCGCAGAACTGTATGGCCTGCAAAGTCTAAAATATTTACTATGTAG
CTTTTTCTTTCTTTTGGAGACAGTGTGCCACTCTATTGCCAGGCTGGAGTGCGGTGG
TGTGATCATGGCTCATTGCAGCCTCAAACCTCTGGGCTCAAGCAATNCTCCCGCCTTGGT
CTNCCAAGTAGTTNNGGACTACAGGGCATGAGCCCNCCATACCCCGGNTAATTTT

Sequence 2433

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGGAAAATGTTTTCTTTTTT
AATTTAAGGTTTAAATTCCTTTGCCAAATCAAAAAAAAAAAAAAAAAAAAAAACGNT
NGCNTGCCNNGGCCGCGCGGCGNNCTTACTTTTTTTTTTTTTT

Sequence 2434

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTCTTGAGTCGACCCA
CGCGTCCGATAAAACACCGCCTTCAGTGTAATAATTTTACATGGTATCTGAACAACATTT
ATCCAGAGGTGTATGTGCCAGACCTTAATCCTGTTATATCTGGATACGTGAGTATTTCC
TGTTCTTTTTTAATTAATACTCCTTGCCACCAACCTTTATGTGGTTCTAAGAAAATT
GCTGAAATACTTTCTTTATTGCTTTTGAGATTTTACATTATAATCATTAACTTCTTC
TAAATTATTTTAAAAATATATAATCACATGGATTAAAAAATTTTCATAACTTGAAAT
TTTCCTTTAGATTAAAAGCGTTGGTCAGCCTCTATGTCTGGGATGTTGGAGAAAACAATC
AAGGAGGCAAACCATTAATTATGTATACATGTCATGGACTTGGGGGAAACCA

Sequence 2435

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTTTTTTTTTTTTTTTTTAAATG
GTTAAGCTACTCAAATTGTTTCAGAGCCAGAGTAAAAACCAAAAAAATACTCATCAAT
ATCAATTGCCAAATTCAGTCTGAAAACATTTACACACAGCTTACCCAAGTATAAAGCTG
CTGGGGGGACTTCTGAAAANTTGGCAACATTCATTNNGGGGCTTNGAAATGCTTTACAAGG
GGAAGGNTTTTTTAANGCAGGGCTTACNTGGGTTTTCCCCCAAGGCCCTGGNNANGTTT
NCCNAAAATNAAAGGGGGGGGCCCCCCTNGNNGNGGGTTTTTCCCCNNCCNCCNNAN

TABLE 1

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CATNANGGGGNGNGCCCCNCNCNNTTTTTNTTTTTTAAAGGGGNAAANTTTTTNCGNGNN
TNTGAAAAAAGGGTTTTTTTAAACCCCGGGGGGGTTTTNTNTNNTTTTTTAAAAAATA
TTTTTAAAAAGGGGGGGGGGNGNTGGGNNTTTTTNTGGNGGGAAAAANNTNTNACACCCC
NNTAAAAANGGGGTTTTTNCNNNATTTTTTTTTTNCNNCCCCAAAAANANGGGGGGGGGG
GGGGGGG

Sequence 2436

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTCATTTTATTTTTAC
GTTGTTACGATATGGGAGTAGTGTGATTGAGGTGGAGTAGATTAGGCGTAGGTAGAAGT
AGAGGTTAAGGAGGGT

Sequence 2437

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGC
GTCCGGCCTGGGACAGATCCTTAGTCTTTCCTTGACTTTATGACCCAGAGGTGAAAGGC
CAATGTTTTGTAGAATGTCCTTAAACTTGGGTTTATCTGAGGTTTCTTGTGATTGAAT
TCAGGTAGACATCTTTGATGGGACTGTCATAGAACTGATGCTGTGTTCTAATTGCATCT
TATCAGGTGACTTATGATTTCTGTTTGTCCATTATTGATGCTGTTACTTAGATCACTG
ATTAAGGTGGTGTCTGCCTGGCTTCTCCAGTGTGAAATTTCTTTCTTCTTTGTAATATT
TTGTGGGGGAAGTAACCTTAAGACTATGTAAGTGTTCATTTCTTTCTTTCTTTTGA

Sequence 2438

TACTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACAAGCTTCGACCCAC
GCGTCCGAAAGATTCTTGGCTGAGCATGGTGGCTCATGTCTGTCATCTCAGCAATTTGGG
AGGCAAGGGCAGGAGGATAGTTTGAGCCCATGAGTTTGAGACCAGCCTGGACAACATAGT
GAGACCCCATCTCAGCAAAAAAAAAAAAAAAAAAAAAAAAAANGTGCGGCCGGCCGC
CCGGGCAGGTACATGACTATATCAGGATTTCAAATTGAGGAAACCATTGACCGCGAGACT
TNTGGCAATTTANAGCAACT

Sequence 2439

CCGCGGTGGCGGCCGAGGTACCTATTAAGCTCATGAACCATAGAGGTATCTCGGTGGCCC
CTCATTACCATCTGCTGTTCTTTCAGCTGTTTAGCTACATCTTTGGCTGAGGAACCAGAC
ACTTCAATCCATGTCTTAGAGAAGAATGCACATGACCCCAACATGAAGATGATATAAACA
ACGACATGGACAG

Sequence 2440

TNCTATAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGGCCGCACTTTTTTTTT
TTTTTTTTGAAAATAGTTTATTATTTTATTGTTTTTTGTTTATACATGTTAAGTTTCAA
CTTTCAATAATAAAATTCAATAAATTTGATTCCTTAATCATAAAAACTTGCTTTACA

Sequence 2441

CTATAGGGCGNTTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCAAGCTTCGACCC
ACGCGTCCGATAATTTATACTAAATTTAGTAAATGGACTTCTTATTCAAAGCATCAATA
ATTAAAGAATTATTTTAAAAAAAAAAAAAAAAAAGTGACCT

Sequence 2442

GGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGACAAGCTTCGACCCACGCGTCCGCTT
AATAGCAAAGGATAATTGAAATCCCAAACCTTACAAGGTTTTCAACAAAAGTGAAGTTTGC
TTAAAGTTAACAGTGTAACATGTATTATGGTAACTTCTAATCTTGTGGCCTTAGACAGTC
TAGTCCAAAGGCATAAAGAAAGTTTGCTTTAAAAAAAAAAAAAAAAAGGAATGGTTATCTTCA
AAAAAAAAAAAAAAAAAGTGGGGGGAGACAGAAATTTATGTAAGAGAGTGTTATATGGTAAAT
CTTGTCTGAAATAAACTAACTGGTGTTTAAAGAAAAAAAAAAAAAAAAAANGT

Sequence 2443

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTT
TTTTTACCTGAAAATGCTTATTCTAGCTTCACATTTGATTGTTTGGCTAAGAAGAAAAT
TATTTATTAGACTTAATTTTCTCACGAGTTTAAAGATTGCTTCAGATCTTAAACTTCTA
ATGAGGGAAAGCTGAGAAGTCCAATGCCATTCTGATTTTGGCAACTTACAAGTAGTCTTT
TTTTNNNTAGACCTTTTTCAGGACCTTTTTTTTTTCTTAAGTCAGGGGGTTTNCAAAAC
CTTTCNAAAGGGGNTNTTTTTTNGGGNNNCCTGGGCCGTTTTTAAAAANTAGGGGGGAN

TABLE 1
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CCCCCCCCGGGGNTGGGGGGGAATTTGATNTNAAAGTTTTNTNGATCCCCGCCCCCNTGG
GGGG

Sequence 2444

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTTTTTTGAAATGTTTGAAGTTAACTCATTTTATTTCTAGGATTTGGATTTCAACATTT
TAATTTCTTTGGAATATAAGTCACTTTTTGCAAGCTAAAAAATAGAATCAAACCTAAGGTG
ATCTAAGTCCTCTAGGCATCCAGGCTGATCCTTGGAATCATGAGCAGAATGATGACATAC
TACANGGGGCTAGCAATACCGGNTNTAACTNTTAAATAATANCCCTNCATGGTTTTATT
AGGGAACCAGCCAAAAGTCCCGNCCCTTTTAAACTNNGGGGGANCCCCCGGGCTTNNNGG
GANTTCGATATTNACTTTTTTNGAAACCCGCCNCCNCCNNGGGGGGGGGGCCCGGGGCC
CCNACNTTTTTTGTTNCTTTTTAANGGGGGGGNNNNAAATTCGCCCCNCTGGGGGGGAA

Sequence 2445

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTATTGGTATTTAGTTTTATTTTATAATCATAAACTTAAGTCTGCAATCC
AGCTAGGCATGGGAGGGAACAAGGAAAACATGGAACCCAAAGGGAAGTGCAGCGAGAGCA
CAAAAGATTCTAGGTTNNTGCGAGCAAATGGGGTNGGNGGGGNGCTTNNNTTGGNTAAAN
AAGGGATGNNNTTGGGGGTTTAAAAAAACCCNNGGCANNCTTTTTTNGGGTNNNCCCN
ANCCCCAANNNGGGGGGNNTNTTTGTGGGGGGGGTNGNNTNTTTTGGGGGGACNCAAAA
ANGNNNTNTTGGNCCCCNAAAAAAAANTTTAANGGCNTTTTTTTTTTTTTTNTAAAA
AAAANNNAAGTTNNNTTGGCCNANNNCNCCCTNTTTTTTTTNGGGGGGGNGGNGAAAA
AAAAAANNNGNNGNCCCNNTTTTTNNNGGGGGGGGCCNAANTTTTTNTCNNTNAAA
AAAAAATCTCCCCC

Sequence 2446

CCGCGGTGGCGGCCGCCCGGGCAGGACACAGGAGGCCTTATTACTTTTAAATTATACAAC
ATTTTTGCTTAAATTTTTTAATAAAATTTTTCTTTATGACTTTTGCAGACAATTT
TTTAAACATGTTTTAACTTTTTGACTTATTACAAACATTCTTTCTTTAAACAACCAAGT
AATTTATTTTCAAGGACAAGAATTTATCATATAACTCTTTTTATATAAATTCTGCCTCTCCC
CTTTATTTTGAAGATAACCAATTGTTTTTTTAAAGCAAACCTTTCTTTATGTGTTTTGACT
AGACTGTCTAAGGCCACAAGATTAGAAGTTACCATAATACATGTTACACTGTAACTTTT
AGCAAACCTTCACTTTTGTGAAAACCTTATAAGGTTTGGGGATTTCAATTATCCTTTGCT
ATTAATAAGACCTTGTTCACTCTAAATTAACCTAAA

Sequence 2447

NCACTACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCAC
GCGTCCGGGAGAATTACCCGAAAAACAACCACACTGCTTCAATCCTGGACAGGATGCAGG
CAGATTTTAAAGTGCTGTGGGGCTGCTAACTACACAGATTGGGAGAAAATCCCTTCCATGT
CGAAGAACCGAGTCCCCGACTCCTGCTGCATTAATGTTACTGTGGGCTGTGGGATTAATT
TCAACGAGAAGGCGATCCATAAGGAGGGCTGTGTGGAGAAATTGGGGGCTTGGCTGAGG
AAAAATGTGCTGGTTGGTAGCTGCAACANCCCTTGAATTGCTTTTGTGAGGTTTTGGG
AAATTGNCTTTGCCCTGCTTGCCTCGTGAAGAGTTTAAAGTNNCTTCCNNAGGNTNA
NNTAAGGGTNTCTTNGGTCTTTNTNANNNCCTTCNTTANTTTGGGGGGNG

Sequence 2448

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGCCGCACTTTTTT
TTTTTTTTTTTTTTTTTTTGAATTTAGCCACTTCTCAGGCCTTNTTCCCCATAATTG
GAACTTTCCTTTGGATTTGATCAAGTTGGATAGAGTTGATCAAACCCTGATCAAGTTGGA
TAGAGTTGATCAAACCAATGGGAAAAAGACCAAAACAATAAAAAACAGACAACAC
AACAAAAAACAGTTAGGCAAAACAACAATGGCACAATTTATATGATAACTGAGTGCTCT
AATGGTAAGGAGAAATTAAGACCAGTTGGTCGTTAATNTTAACCTTAACCAAGACAACCC
CAA

Sequence 2449

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTACAAGCTTCGACCCACGC
GTCCGCGAAAGCGAAGAAGGAAGCTCCTGCCCTCCTAAAGCTGAAGCCAAAGCGAAGGC

TABLE 1
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TTTAAAGGCCAAGAAGGCAGTGTTGAAAGGTGTCCACAGCCACAAAAAGAAGAAGATCCG
CACGTCACCCACCTTCC

Sequence 2450

CCGGGCAGGTACTTTTTCTAATATACTTTTCNATTACACATGAAAGCCATGACAGGAACT
GAGATAAGATTTCTTTGTTTTTGAACATCTTATCTACTAANAAAAATTTNAAAAATCAT
TTNACTTNAAAGCTATTAGTAGTTTTATACTCNCCTTAATAAGTATTAATAAATTTACATA
CTNGACTTAGTAANCTAAGCAATTTGGNTAACGTNTTTNTTTATTNGAGNGANTTTTTGC
CANTTGGATATTTTTNCTACCTTACTATTACNTTATAAATATATTTCCCCAAATATATCN
TTCTCTTTAAAAANTATGTTTTGNCAACNAACCTTNAAA

Sequence 2451

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCAAAGTTATTGCAC
ATACACTTGTTTACTTTGTATGTTTTGCAGGATTAACTTTGTATAATCTTTTACAAAA
TTTTTTTTTCAGTATGCAAGCTTGCAAGATGAAAATAAAACCTGTTTGCCTGATAAAAA
AAAAAAAAAAAAAAAAAAAAATGT

Sequence 2452

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAGCTGATTACACCAACTT
GAATGAAACGACTTCTCTTGTGAAGTATCAAGGGGCGGCCAGAATCACCTCTGCAAGTAT
TGGGGTCAGCATAGGGACTCACTCCTCCAGTACAAAGGAACCGAGGGGTGACCACCTCTG
AGATGTCTTGACTTTGTCATAGCCTGGGGCATATTGAGCATCTCTCTCACAGCTGCCTT
TCTTATCCCCATTCTTGATGTAGACCGGCCGCCGGGCAGGTGCACATACACCAAATGTC
TGAACCTGCGGTTCTCTCGTACTGAGCAGGATTACCATGGCAACAACATCATCAGTA
GGGTAAACTAACCTGTCTCACGACGGTCTAAACCCAGCTCACGT

Sequence 2453

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTAAGAAATAGGGTCTCACTCTGT
CCCCAGGCTGGAGCCATTATAGCTCACTACAGCTTCTGACTCCTAGGCTCAAGGGATCC
TGCCACCTCAGCCTCCCTGGTAGCTGGGACTATAGGCAGGAGATCGCTTGAACCGGGAGG
CGGAGGTTGCTGTAAGCTGAGATCGCGCCATTGCTTCCAGCCTGGGTGCCAGAGCAAAA
CTTTGTCTNAAAAAAAAAATTNTTTTTTTAATTAATAAAAAGGGNCAGGGGATTTTTT
GGGAAAAGGTCNAAAAAATAATTGNNTTTTTGAAAAAANCCTTGGNAAAAANCCAAAAA
AAAAATTNGGNGGGAAAAAATNNTTTNNTTNGGGANAAAAAANAAAAAANNT
ANGGGGGGGGTTTTTTTTTNGGGGNGNGGGGGGGGGNAAACNCAANCCCCCCCCNNTT
ANAAAAAAAAGGGNGCCCCCCCCCNNGNGNAAANGNGNTNTTNTAATTTTTTTTT
TTTNCNNNNNNNNNNNNNGGGGGGGGGG

Sequence 2454

GAGACACAGTCTCACTCTTGCCAGGTTGGTCTAAACTCCTGGGCTCAAGCAATCCTCC
CGCTTTCAGCCTCCCAAAGTGCTGGGGTTACAGCCGTGTGCCACTGTGTCTGGCCCTTTT
CTTTTTCATAGGAGAAGGGTTGTTGACTCCCAGGAAACGTCACCTGGAACCAAGAATGTG
AACTCAAGGACCCCGCCTGTTGGCAGCTGCATTTACTTGACTCCTGTTCACTGTTTCTT
AGCCTTGTCTTTCTCTCCTGCCAGTCTAGGGGACACTGCTTCTCCTGGTTGACCTCAT
CAATGCC

Sequence 2455

CCGCGGTGGCGGCCGAGGTTTCAAGGACCAGCCTGGCCAACATGGTGAAACCCCATCTCT
ACTAAAAATATAAAAAATCAGCCGGGCATGGTGGCATGTGCCTGTAATCCAGCTACTCAG
GAGTCTGAGGAGGAGAATCACTTGAACCTGGAGGCAGAGGTTGCAGTGAGTCGAGGTTGC
GCTACTGCACTCCAGCCTGGACAACAGAGGGAGACTCTGTCTCAAAAAAAAAAAAAACCTA
CAGCTGTTCAAGGACCAGCTGACAGGTCAAGTGTGGCCTTTTCTGGTCTTTGAACACATC
ATAGAAAGTGACAAATGCTGCAAAGCCATGAAGAACATGAACTATAAACGGGTAGACTAA
CTGCCAGCTTAGACACTTATCTATGCCACAAAACAGCTGAATTTGTCACATTTATATAT
TGCAATAT

Sequence 2456

AGGTCTTCGACCCACGCGTCCGGTGGCTTATGCCTGTAATCCAGCACTTTGGGAGGCCG

TABLE 1

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AGGCAGGCGGATCACAAAGTCAAGAGATGGAGACCATCCTGGCCAACGTGGTGAAACCCC
ATCTCTACTAAAAATACAAAAAGTAGCTGGGCGTGGTGGCACACGCCTGTAGTCCCGGCT
ACTCGGGAGGCTAAGGCAGGAGAATCGCTTGAACCTGGGAGGCGGAGGTTGCAGTGAGCG
GAGACCACGTCGCTGCACTCCAGCCTGGTTGACAGACCGAGACTTCTTTTCAAAAAA
AAAAAAGTGCACCTGCCTNNGCGGNCGGTTAAAAAATNGTGGATTNCCCCGGG
CTGNAGGAATTTTCGATNTTCAAAGCTTTATTNNATTACCGTNCGACCTTNGGGGGGGG
GCCCCGGTACCCCAACTTTTT

Sequence 2457

CTATACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCAAGCTTCGA
CCCACGCGTGCGCAATTTTAGGCCCACAAGGAGTCAAGCACCTCAAGGAGATCTTCAGT
TTGAACCTGGTGTAGACACAGGGATACTGATGAATCAATATTCAAATTAGCTGTTACCTA
CTTAAGAAAGAGAGGAGACCTTGGGGATTCGAGGAAG

Sequence 2458

GCTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTAGAGTCGGGAT
GCACAACCTCAACCACCGACTTATCAATGCAGCCGCTGTGTATTGCAATTGGCCGTAC
CTTAAGCACTGAGCCACCCGGGTTTAGTTCAGCCATTTCAAGAAGTATATTTAACGTCGG
TAGTTCTGCTTTATTAATGAAATGCAGCAGAGGTACCTGCCCGGGCGGCCGCGCACTTTT
TTTTTTTTTTTTTAATGAAATTGAGGATTTAACCATAATGTGAGTTCTAATTAGGACA
ATAAAATTAATCCTAATACTACATTTCTTATAAATACAAAAATGTGTTTTGGAAACACATC
CCACCTGGGGCGCTAAGCGATGAGAGTAAGCAATTATAATGGCTGACTCCTCCAGCTCTT
TGCTTTGAGTTGCCGTAAGAAAAA

Sequence 2459

CCGCGGTGGCGGCCGCTACCTGCCCGGCGGCCGCGGCCGCGGCCGCGGCCGAGGTCTTCGACCCACG
CGTCCGAACTAATTGGCTTTTAGAAACACCCACAAAAGCTCAGAAATTGGCTTTAAAA
AAACAACCACCAAAAAAATCAATTGGCTAAAAAAGTGGGCCG
TCACCT

Sequence 2460

ACTACTATAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGCGGCCGAGGTCTTCGACC
CACGCGTCCGGACAGCTCGTGTCCACAGGGGTATGGGGTCTCTTGCTGCTAGGATTCTG
GAGTTTCATGGTAAGAGCGGGCCACTCCCCACCTATTCAACTACCCCTTCCCCAGGAGT
TAATGGGGGCTAGTAAGGAATGCTAGTGCTTGAAGCCCTGTGCAGGCTTCTGAGATTCC
TGCCCCCTCAGCCCATGCTCTGCATCCTCCTTCATCCACCCTCAATGTTTCTTCAA
AGATCTGCTCAGAGTGTGCCAGTCTTCCCAAATTCCTGGTCTCTCCATGAGAGATGTTCT
TCCTGGCTGCTTCTAGTTGGCCATCTGGTCTTGAGTCTTGTACCTCGGCC

Sequence 2461

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTTTT
TTTTTGGGTTTCTCTTTGAAAGNTTATTGNTTCTTTAAAAAAGCTTAACTATACCT
TTTATATTTACATTACCTNTCANAATATTTAATGGNACCTGCCCG

Sequence 2462

ACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGAGCAGGAT
TACCATGGCAACAACATCATCAGTAGGGTAAACTAACCTGTCTCACGACGGNCTAAA
CCAGTAGAAACAAAGT

Sequence 2463

ACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAAAGTTA
TTTTAGTCATGAAATTTTATATGCAGAGAGAAAAAGTTACCGAGACAGAAAACAAATCTA
AGTCGA

Sequence 2464

CTACTTAGGGCGAATTGGAGCTCCCCGCGGNGCGGCCGAGGTTTCAAGACCAGCCTGGC
CAACATGGTGAAACCCCATCTCTACTAAAAATATAAAAAATCAGCCGGGCATGGTGGCATG
TGCTGTAAATCCAGCTACTCAGGAGTCTGAGGAGGAGAATCACTTGAACCTGGAGGCAG
AGGTTGCAGTGAGTCGAGGTTGCGCTACTGCACTCCAGCCTGGACAACAGAGGGAGACTC

[illegible]

TABLE 1
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Sequence 2473

CCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGGGTTTCTCTTT
GAAAGNTTATTGNTTTCTTTAAAAAAAAAAAAAACCTATACCTTTTATATTTTACATTCA
CCTCTCANAATATTTAATGGTACCTGCCCG

Sequence 2474

CCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACGCGTCCGATCCTCTTCTGCTGTTCTG
GAAAGAAACAGACCAGTGGTATGGAGTATAAGAAACTGATGCACCTCAACCGGATGTGA
AGGAAGAGGAAGAAGAGAAGGAAGAGGAAAAGGACAAGGGAGATGAGGAGGAGGAAGGAG
AAGAGAAACTTGAAGAGAATCATGCTGTTGCATTAGAACTTTCTGCTTTGCACAGGAAA
GAGTCACACAATTAATCAACATGTATATTTCTCTATACATAGAGCTCTATTTCTCTACG
GTTTTATAAAAGCCTTGGGTTCCAACCGGAGTAGATGTGCTTCTGAACCGCANGGAGC
AAACACTGAAATAAAATAGTTTAT

Sequence 2475

CGAATTGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTTNNGTATTTTN
AGNANAGATGAGGTTTACCCTGTTGACCAGGCTGGTCTCGAACTCCTGACCTCAGGTGA
TCCACCCACCTCAGCCTCCCAAATGCTGGGATTACAGCGTGAGCCACCANGCCCGGCCA
ATTTTTGTAACTTTTACAAAGATATTTAATTTAAATTTGATTTTAATAAAAGGTAGACAT
CCAAAACACAGGATGATGAATGCACTTCAATGTTAGGGGAATATC

Sequence 2476

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTTACTTTAAACAAAAAA
TGTTTACTTNTAAGGATATACGCACAAAGGGAACATAATATACAGATAAATGAGAAGTTT
CGATTCTGCATCAAGCATTATTCAATCGGACGCGTGGGTGGAAGCTTGTAACCTGCCCG
GGCGGCCGCTCGAGGCCGCACTTTTTTTTTTTTTTTTTTTTGGAGACGGAGTCTCGCTCTGT
CACCCAGGCTGGAGTGCAGNGGCGCAATCTNGGCTCACTGCAACCTCCACCTCCAGGTT
CAAGTGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACAG

Sequence 2477

CTAACTATAGGGCGANTGGANCTCNACCGCGNGGNGGCGGCCGNGGNCAAGGCTTCGACC
CACGCGTCCGNAAAAATTANCCAGGTGTGGTGGCACACTCCTGTAATCCCAGCTACTCAG
GAGGCTGAGGCAGGAGAATCGCTGAATCCAGGAGGNGGAGGTTGCAGTAAGCCGAGAAC
CTACTGCACTCTGGCCTGGGCGACAGAGCAAGACTGTCTTGGGAAAAAAAAAAAAAAAAAA
AGTGGCGCCGNCCGNCCGGGCAGGTCCTAGCTTGAGTCGACCCACGCGGTCC

Sequence 2478

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAATTGCTAAAACAGCTCCAGG
GNAAGNNATCTTATTTAGCATTAGCTCCCTCACAACNTTTTTATTTCATACTTNTATTGG
CCAGNCTCATACCTGAAGTATTTTAAATGAGTTNACAATTATTNCACTTACCNTCAGAAA
AAAAAGGAGCAAAAACTCTTAATGACTGGTNACATGCACATTTGGTGTAGGAAATTATT
ATGNGGTAAAATTTATATATTTCTATTTATTTTATTAATTTATTNTTNACACATTATTT
CAC

Sequence 2479

ACTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGCACTTTTTTTTTTTTTTTTTT
TTTTTTTTTTGGTTTTCTCTTTGAAAGTTTATTGTTTTCTTTAAAAAAAAAAAAAACCC
TATACCTTTTATATTTTACATTACCTNTNAAAATATTTAATGGTACCTGCCCG

Sequence 2480

ACTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTCAAGCTTCGACCCACG
CGTCCGTGGTGAACACAGAGAAGACAGGTCTTGATATATTCTCTGTATTCTGGGGAGC
TTTGACCTTGAGCTTTGTACCTGCCCG

Sequence 2481

CCGGGCAGGTCTACTCAAGTAGTCTTTACCCCTACTCAAGTAGGGGGTAAAGTGTAGAA
CAAGGAGTTTGATCTGTGTTCAACTGATTGTGAACCATCAATTGAGATAACTCACTACCT
TCAAGGCCAGCCAGNTACATACTTTTGNAAAAGCCAAGAGTGGAANCAGGGTTGGTTTT
TAATCCAATTTTTGGGC

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Sequence 2482

AGGNCGACNTTNTACAGGCAGNNAAACCGGCCAGNTNAAAACACTATGCTANCTCGCGG
GGCCANTNTTAGGATGGGTGAGGCAGATGAANCCATTCTCCNANTGGCCAAGGCCGAGGG
CATCAGCCTCAAAGAACNTTTGACNGGAGAGAATCACANACGTGNNNTATTCGTCATAAA
NAAANAATGAAAAACCNACC

Sequence 2483

AGGTATTCGACCCACGCGTCCGTAGTTTTATCTTTGACCAACCGAACATGACCAAAAAC
CAAAAGTGCAATCAACCTTACCAAAAAAAAAAAAAAAAAAAAAAAAAAGTGCGGCCGCGCC
GCCCGGGCAGGTACCAGTAGCAACATATGAGTATTTCTCTAGATAACTTTTTTTTGACAA
GGTCTCACTCTGTTGCCAGGCTGGAGTGCAATGGTGCAATCTTGGCTCACTGCAGCCTT
GACCTTCCCTAGCTCAGCTGAACCTCCCATCTCAGGACACCATTGCCTCCACTGCCCATC
CTGCATCTGCCTGCCTACCCCAAAAGT

Sequence 2484

AGGTACATTTTCACTCCTGCTCTAAAACCTTGCTCAGTCTCTCACTGTGCCTTATGCCCC
TCAGCTGAATTTCTTTCTTCTGAGCAGGCAGGAATTGAGGTTGCTGCAGACGTGTATGCAT
TTGCCACCAGTAACATACTTGGTGCCACATGACTAGGATATGTTCTCTAGTGCTAACATG
TTCGTTTACAGTTCTTAGGACTCCCTGATAGAAAAAACACAAAAAACACAAAAAA
CCCAACCAACCAAAACAAACAAAAAACACAGGAGTTTCTCCAAAAAGAAGTCT
GCAGTGTCTTTTCTGTTTTCTCTGAAGGTATCCCAGGGTGTTAGAT

Sequence 2485

AATGTTGCAGGCTACTCTCTGCCGACCAGGCCGCCGCCGCTCCCTCGTGACTACAGCAGG
TACCTGCCCGGANGNNNNNANGNAACGNATGTTTCCACCTNCTTCTCCAACCTCTACCC
CACCATTAGTNGTATNTTNACTNTNAAAACAGTGGAACCACAGCCCTAAAGACCTGCTNA
TNAAAGTNCTTTTGTCTTAATTGTATTTAAAAA

Sequence 2486

GGGGAAAACCCAGCTCCACCGCGGNGGCGGCCGCCCGGGCTTTTCAAGCNTCGACCNACC
CGTCCGATAATTTATACTAAATTTAGTAAAANGGACTTNTTATTCAAAGCATCAATAATT
AAAAGAATTATTTAAAAAAGGGACCT

Sequence 2487

AGGTACCCTCACCTTGGTCATCTATCCTGAAATAAGGCTTAGTTAGTATTGGCCTGAATG
TTTTGTGTTTTTTTTTGTGTTTTTTTTTTTTTTTACTGTTACTTTGAAAAATATGTATG
TATACCTTATCATATCTGCCTATATCACTTACTTTGGGGAGATACTCAGAGCTTTGTGGT
TATCAGTATACTAAAAAAGTGCGGCCACCTGCCCG

Sequence 2488

AGGTACGCGGGGAGCCTGTCCAGCTGGCCCGGGCCCTGGCCTGGTTCTCAAGTGTTTCC
TAGACAGAGAGGCACCTGGGTCAGTATTAGTCTATTTATCAGAGGTGTAATAATCTATG
TATAAGTTTTTCTCCTTTTAGATTATTTTGTATTTGTTTAAAAGAAGTTTGTCAAATA
CAAAATATAAAGAAATGACTGAAAGTTGTTGACAGGGTTTTAAGAAATAANTTATTCT
AATTGTTTTGTTTGGTTTGTGTTTTGCCTTGTAACCTAGCGCCAAGGAAC

Sequence 2489

CGGGCAGGTACGATGGGAGGACAGCTTTGTAGAAAGGACATTATNCAGCTNATAGCAAAC
TTTGTGGATCCCAATCCGAGATTTNCCTGCTGAAAGACAAGAAGTNTCTNAAATAAAGN
GCTGTANCAGNATTTGTATACTCCAGAATAAGNTTCTGTGATTCTTANCTGCCAATGTGT
TCAAGGCGTGATGACTNNGTNTCTGTTTCTNTGAACATNAATACTAGGGTCTGTATAAT
TTCAATGCATGCCACCAGCTNATCAACCCTTTTGGCTTTGATTTTTGNATGNNGNATTNT
TATCCCTANGANTTCCGGCCAAGTACCTTTGGNCGCCACCCGTGGTGGGAGCTCCAATT
TCGCCCTTATAAGTGAAGTCCGNAAATTACGCGCCGCTCANTTGGNNCGGTNAGTTTT
ACAACGCCNGANGACCTGGGGAAAAACCTTGNCCGTTACCCCAACT

Sequence 2490

GNCGGGCAGGACGCGGGACCAGAATGCAGTTCAGCTTAGGAAGCCACAAACAAGCCACC
CAGGAGGAACAAACACCGNAGCGTGGATTTTTCAAATTTCCCCGGGAAAGTAAGTCTC

TABLE 1
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GCTTCCTGCCAAANAA

Sequence 2491

CGGGCAGGTNCCTTGCTAAGTTCAGACCTTCTCTTCTTTNCTTTCCTTTCCTCTCCTGC
CCATTTTCCTGTTCTTCTGTCTTCAATACTTCTGNAGCTTCCCATTTCATGTTCTCTTCT
CCCACGCAGGCCNCATTGTGTGCAAAAAGCTGNGGNGGGGGCTGTGCTGNACTCNTNCCTG
CCTCCTGCCTCCTGCGGCTGTTGGATTTGGGAATGACCTTTGGTGAGAGNCTCACTGCTC
CAGGGTCTATTTTTTGGTCCAAAGGCTAGAACCTATANAAGTNGGGAATCACCTNTTTTT
TCTTTTTCNNGGGTGAAAATAAAATGGGTTTTTTCAANTTCNAACAAAAANAAAAA

Sequence 2492

AGGTACAGAGAACTGAATTTACACAATAAAGTGTTACCCTATACCAGTGATTCTAAAATT
TTGGTCTGGGGAACTTTTCATGGGGTTCATGAGGTCAAACTATTTTCATGATAATGTTA
TTTTGCCTGTTATATTCTATTCTCGAGTATACAGTAGAGTTTTCCAGAGGCCACATGAT
CCATGACATCACAAACAAAATGAATAGAGACAGATGAAAATCTAGCTGGCTTCTGCTACAT
GAATCAGACATTAAGGGGTCCAGAGACCATAAAGTGTGACAACCACTCTTCACAACC
TATATATAATATCTCAAAATAATGTTAATTCTCTATCCTCAAAGTTTATTTCTTATATC
TACATTTTCTATGATCAACACACTCACTACAAA

Sequence 2493

CCGGGCAGGTACCACAAAAACAGTTACATGGTAGAGTTCGAATCACACAGAAAGGAATCC
ATTGAGCAATTTCCAAAGTTCAGACTGTTTGGGCCACCCAGAATTCCACCAGGACTG
GACGGCCCCCACCAGGCTATACTGGATATGTGGACACAGAGCTTATGCTAAGCTGCCTGA
TCAGGACAGGTAGCTGTATAATTGGCACCATTAAAGCCATCTTTCTTCTTACTGCCATAA
AAACAGGTGAAGTTCTAGGCTTCCAGTCTATGCTTCCTGCAAAAAATGAAGCATAGCC
TAAGTGATTAGAAAAATAATGAATGGCCCTCTGAAAGAATCATACAATACTATAGACCCG
CCTTAGGCACAAGAAGGCTCATGAGGATATC

Sequence 2494

AGGTACCTTGGGATTGCAGGTGCCACCCCTTGCGCCTGGCTAATTTTTGTATTTTAGTA
NAGACGGGGTTTTGTCTGTTGTCCAGGCTGGTCTCGAAGTCGAGCTCAGGTGATCCGCC
CATCTCAGCCTTCCAAAATGCTGGGATTACAGGTGTGTGCCACCATGCCAGCCAACACA
CACATTTATTTAATGCAAGTTTTACCTAGCACAGAGAAGCAGTGAGAGTCAGTTACTTAT
ATATTGAATTGGACCAAGTAAGTTGTGAAGAAGCTAGTAAATATATGGAGGCTAAAAAGC
TGAGTGGTTCTGTTCTAACAAGGTCTGCACAGTAATCTCTTGGCCTCGACTTCTCATCCT
TAAAAATAAGGAGATCGTCCTATGTTTC

Sequence 2495

NNGGGGGGGGGGGGGGCCCCCCCCNNGGNNNAAAAAAAAAANATTTTTTTTTNTNTTTTT
TTTTTNAAAAAAAAAAAAAAAAAANNGGGGGGGGGGGGGGGGNGGGGNGGGTCTTTTTTN
AAAAAAAAAAAAAAAAAAAAACCCCCCCCCCTNNNTTTTTTTTTTTTTNTNTATNAA
AANNGGGGGGGGGGNNNNNNNNNNNNNNNANATNTNTTTTTNNNNNGGNGGGGGGGGGGG

Sequence 2496

TGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACAGCGGGGGCGGAGGTCANGGG
ACAAGATGGTGCCACCGGTGCAGGTCTCTCCGCTCATCAAGCT

Sequence 2497

GGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACAGCGTGAAGGGTTTANGGCAG
CAGTGTCTGATTCTTTGCGGGACGGCGAGCGCATTTGTGCTTTGCCCGCCGCGGCCTAG
GAGGCCTTTTGAGGCCGCGTAGTCGGTGTTTTTGAACTGACTCTACAGCTTCTGGCAGGC
CGTGCGGCGCCTGACCCGGCCTCACCATGTTGGTGCTGTTTGAAACGTCTGTGGGTTAC
GCCATCTTTAAGGTTCTAAATGAGAAGAACTTCAAGAGGTTGATAGTTTATGGAAAGAA
TTTGAACTCCAGAGAAAGCAAAAAAAAAAAAAAAAAANANAGTACCTGCCCG

Sequence 2498

AGCTCNCCGCGGTGGCGGCCGNGGACNAGGNGCTGANTGTCTGNGTNTCAGAATGGGATN
AGTGNCCTTATAATGAGGGAGCTNGNTTGTCCCTNCCACNACATGAGGTTACAGCAAAA

TABLE 1
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AGATGGCTGTCTATNAACCAGCAAGTTNGCCTTTGNCANACCCAGATCTGCANACTACC
TTGATNTTGGACTTTNCATCCTGCACAAATCTAAGANANAAATTACTGNTGTTTATCAAC
CACTCNGTTNATGGTNTTNTTCGTTATAGCAGCCTGAACCTAAGACAACAGGTNGATCTTA
AGGCATNGCTACNATNAAGTCTTCCNTGCTCAGAATCTCC

Sequence 2499

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGGAANTGGATGACTT
TTCTTGTCCATATACCATGGAAATCTGTGTGCTGGGCATGGAGAGTGNGAAGCANGCAG
ATGCCAATGCTTCAGTGGCTGGGAAGTGATCGATGCCAGTGCCCTTCAGCAGCNGCCCA
GNACTGTGTCAATNCAAAGGGCCAAAGTGTGCAGNGGAAGAGGGCACTTGTGTGTGTGGAAG
TGTTGAGTGCACCGATNCCAGGAGCAT

Sequence 2500

TGGAGCTCNCCGCGGTGGCGGCCGAGGTA CTATATGTCTGAATGTCTGTGTCTCAGAATG
GGATTAGTGACCTTATAAATGAGGGAGCTTGTTTGTCCCTTCCACTACATGAGGTTACAG
CAAAAAGATGGCTGTCTATGAACCAGCAAGTAGGCCTTTGCCAGACCCCAAATCTGCAGA
CTACCTTGATCTTGGACTTTCCATCCTGCACAAATCTAAGAAATAAATTACTGTTGTTTA
TCAACCACTCAGTTTATGGTATTTTTGTTATAGCAGCCTGA ACTAAGACAACAGGTAGAT
CTTAAGGCATAGCTACAATTAAGTCTTTCATGCTCAGAATCTCCATCTGCTGGCCAAGC
ATAGTGGTTCGCACTTGTAATCCTGGCACTTTGGGAGGCCAAGGGCGGGTGGGTACCTG
AGGTCAGGAGTTTGAGACCAGCTTGGCTAACATGGCAAAACTCTGTCTCTACTAAAAATA
CAAAAATTAGCCGGGTGTGGCGGNGGGTGCCTGTAATCCAGC

Sequence 2501

NTGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCCGGCCGGGCCATTNTTCTTTCTTT
TTTTTTTTNGCGGATGGGGACTTGTGAATTNTTCTAAAGGCGCTATTTAACATGGGAG

Sequence 2502

AGGGGCGAAATTGGGAGCCTCCACCGCGGTGGGCCGGGCCGAGGTACTTTTCTTTTTT
TTTTGNTGGATGGGGGACTTGGNGAATTTTTCTAAAAGGGGGCTATTTNAACATGGGGA
AGGANAAGCGTTGTGCCGTTTCCA

Sequence 2503

CCGGGCAATCTAAGAAGACATGATCACTAAATGTGATGTGGGATCCCAGATGGGATCCTG
GACCAGGTAAAACTAAAGTAATGTTTCAACTTCAGTAAATAATAATGTATCAATATTGG
TCCATTAATTGTGGCAAATGTGCCACACTAATGCAAAGCGTTAGTAACAGGGAAAACTGG
GAGCAGGGTATATGAGAACTTTTTGAACTGTTTTCACAATTCTCCTGTAAATCTAAACT
CTTCTGAAAATAGAGTTTATTCTTTAAAGTGTCTGGAGGATGTGCACAAGGGTGTGGCA
GCAGAGGGGGCTACAGGTAAAAAATCATGACATCTGGAATATTTCCTTCAATTTTTGCTCC
ACACGGTGACTATCTTACCCTGCTCCC

Sequence 2504

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGGTACCCGGGGGGTCTGAGG
ACCCGAGGTCGTAGGTGGATCTTTTTACGGAGCAAAGAGCAGGAGGACAGGGGATTGAT
CTCCCAAGGGAGGTCCCCCGATCCGAGTCACAGCACCAAATTCATGCGCATCTGTGTA
AAGAGACCAACAAGCAGGCTTTGTGTGAGCAGCAAGGCTGTTATTTACCTGGGTGCAG
GCGGGCTGAGTCTGAAAAGAGAGTCAGTGAAGGAAGATGGGGTGGGGCCGTTTTGTAAGA
TTTGGGTAGGTAAGGAAAATTACAGTCAAAGGGGGGTTGTTCTCTGGCAGGAGTGGGGG
TCACAAGGTGCTCAGTAGGGGAGCTTTTGAGCCAGGATGAGCCAGGAGAAGGAATTTAC
AAGATAATGTCATCAGTTAAGGCAAGAACAGGCCATTTTCATTT

Sequence 2505

CCGCGGTGGCGGCCCGCCCGGGCAGGTAACAATGCAGTAGCCAACAAGATTACCATG
CAATCATTAAGGAGAACCAAAGTAAGAGAGCCACTCAAACCAGATTTTGAACGCTACTAA
AATTAAGAGTAGTTCTTTGATGAATATGAATGAGTAGGGAAAGGATTCTTTGTAATAGTGA
TACCTCTGTGGTAAGAGAAGGGTGGTATGTGAGTTTTAGTCTACAGATTATGGCAAATTC
AGTGACAACAATCAAAATGGTCTAAGATTGACAGTAGCAGATTTTACTCTGTGAAGGTAA
TGTTCAAGGACAAATTTCAAGAAACTAGAAAACCATCTTTACAGCTGAATCTTTCCCT

TABLE 1

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AACCATTGTTATTTCCACTTTTAAAGTCCTCAAGAGATGAGAAAAGGGAGGTAAGGCTTCC
TTATACATTTCTGCACAATGAAACATTTTTCTCCTCCAGGCAAAAGATTCAAGCAGAA
CTGGCAAATATCTTATCTTGCTCTTCTTAATAATATAATGGTGGTAGGATATAAAGGTCT
ATACAATTAACCTANAT

Sequence 2506

ACTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGNCNGGCCAGGTACACNTTC
TTAGACCTCAACCTCGAACTNTCAAATTNAGGATGTCTCANCCCTACTGAGGCCGGGAG
TCACCTNNACACTGANGGCCCTNNGTGNGAAGATGAACCTTNCACCGTCTNTANTGCATT
CTGGAGTGCAAAAATAAAATCCACTNAAGAGTCACAAGGCCCGCTGTGCATAATNGGNTT
CACTTTTACCTTTTTTT

Sequence 2507

CCGCGGTGGCGGCCGCGGCCGCGGCGAGGTACATGTAATGCTCCTGAACTGTATGCTTCGCACG
GCTGACATGCTAAGNTTGTCTGTGTATTTTATGACTATTTTTTAAAAAGTAAACAAA
AAGAATTAGCTGGAAATACCAGCACAGGCAAAACCCCTGGAGACAGAAAGCAGGTGAGTGG
NTGCTGGGGCTTGAGCAGGAGGAAGGGCGAGGGACTGCANAATGGCCATGGGCTTTGCCT
TCTAGCATGATGAGAATGTTCTGGAATTAGACAGTGGTAACGCTTGTTCAACACTGCCAG
TGTAAGTTAATGTCACTGAATTATACACTTTAAATGGCTAACATGACCAATTTTATGTTAT
ATATATTTTACTACCACAAAAAACTANCTGGCACCTAAAAACATTCCATTGAACAGGCC
CCTTCAGATCTGTGCTTTTCTGTCATGCAATTACNCCACAGAGCAAGCACCTATGGCAN
CGTGGATCACAGGCTCTGTTTTANGATAGANAAAGGACACAAGGNGTCCCCC

Sequence 2508

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCTTTTCTTTACTTTT
TTTTTTTTTGAGACGGAGNCTCACTCTGTGCGCCAGGCTGGCGCGATCTTGGCTCACTGCA
ACCTCTGCCTCAGGGTTCAAGCGATTTTCTGCTTCAGCCTCCTGAGTAGCTGGGACTA
CAGGCACACGCCACCATGCCAGCTCATTTTTGTATTTTAGTGGAGATGGGGTTTCACC
ATGTTGGCCAGGATGGCCTCCATCTNTTGACCTTGATCGCCCGACTCGGCCTNCCAA
AATGCTGGGATTACAGGCGTGAGCCATCAAGTCTGGCGAGAGAGATTGTTTCTAGATGAG
GGNGGGGGCCGGNTGTCCTTANCCCAAAGCTTGTCAGGTCTCTATCAGAAATAATGCC
CCCAAAACCAAAAAAAAAAAAAAAAAAATAAGGTACCT

Sequence 2509

GCCGGGCAGGTACTACNTCAGCAATTTCTCCANNNGCNGNNGACAGCATATGGCACCA
GCCCATTTTCAATTTGCTGAGCATCGGCCAAAGCCTGTATGCGAAAGCCAAGGAGCTGGA
CAGAGTGAAGGAAATTCAGGAGCAGCTCTTCCATATCAAGAAGCTGTTGAAGACCTGTAG
GTTTGCTAACAGNGCATTAAAGGAGTTCGAGCAGGTGCCGGGACACTTGAAGTATGAGCT
CCACCTGTTCTCCCTTGAGGACCTGGTCAGGATCAAGAAAGGGCTGCTGGCACCCCTTACT
CAAGGACATTCTGAAAGCTTCCCTTGACATGTGGCTGGCTGTGAGCTGTGTCAAGGAAA
GGGCTTTATTTGTG

Sequence 2510

CCGGGCAGGTACAATTGNTTGAAGATANTTTGTTTTCTCTCTTCAGTTTCNCATATT
ACTAAAGACAAATCATGGTAGGATTGGNTTGTATTATACTTGGCCTAACTATTTGTAT
ACAATGACAGCAAGAATGATTATTTTACTTAGGCTTTAAGTAGGCTCTGATGGAACCT
TGTTCCATAGCAGGAATCTCAGATAAGACTTTGTAAACCCGTAAACTCANCCGAGCCA
TGGATTTATGCCATTAAATACCCATGAGTTGGGTGAAATTCCTNTCCTTTNGAGGGCCC
AAGATAAACCTGGGGCGTCTGCACCTGNCAAAAAGTGATATTCTTTACTTACACAG

Sequence 2511

AGGTACACNGNTNNAATCTTACTTCAACTTTNAANGGGCCACNNAACCCTCTATATCCC
CTTGTAATTTAACTGCTAGTCCACAAGAGGAACAGCTCTTTNTACACTAGGAAAAAACC
TNGTNGAGAGAGTANAAAATTTAACACCCATANTNNGCCTAAAAGCAGCCACCAATTAAG
AAAGCGTTCANGCTNAACACCCACTACCTAAANATCCCAAAAAAAAAANAAAANAAAGNAC
GCGNGGANGTGTNAAATTTNANAGAAGAATTTNTNTTGTGTTCTTTGCACGAAGGNANA
GATAAAGACACTTTTTCAAAA

TABLE 1

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Sequence 2512

CCGGGCAGGTACGCGGGGACTGAAAATNGGACTGTTCAACTCACCTGGCAGCCACTCCCA
GAGCTCCTGGAAGTCTGGCCCAAGGTTCTCTGACTGACTCCTTCTTGGCTTACTGGCTGA
AGACTGACGCTGCCTGATCGCCTCAGAAGCCCCGAGACCATCATGGACGCCGAGCTTTA
GGTAACTCACAGTGGAGGCCCCGCTGCACCCAGGTGAAATAAACAGCCTTGTGCTCACA
CAAAGCCTGTTTGGTGGTCTCTTCACACAGACGCGCATGAAAGGGAAGACATACAAAAAC
AAGCCTCTGAGGTAGGTACCT

Sequence 2513

CCGCGGTGGCGGCCGAGGTACTTNTTTTTTTTTTTTTTTGGGTTTCCGGGGTCTGNTTG
GGGGTCTCAATATTTTTGGCTCCTCTCCTTTACAGACACCTTGTATTTCAAAGTTTTTC
TTGGAGTCNAATTCCTGATCAGAAGTTTGAATGGTTGTTACTGCTGTGTTTTTCATGTCA
ACAATTTCTTTTNTTGTTCCTGACAAGGTGTCTCTTGCAGCTGACTGTATTATTATA
GCGCTTTCTTTCTTTCTCCTGTATTTTTTGGTATCTTNTTGAACACAANAATGCTCTG
ACACAAGCTTGAATCAAAATAAGCTTGTCAATAGCTTCCTTTTCGCATTAGATTTAACTGC
TCCACGNGATAATACTTAAGGAACACTTTTGTTCCTTCAAGAGCCCAGTTATCGAGACCA
GCTTTTTCCAAAATGGTGGCACAAGTGTGAGGGCTCATGCGGG

Sequence 2514

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTT
TTTTACTTTTTAACTTCTTGTTAAAAATGAAGACACAAACAAACACATTAGCCTAGGC
TTACACAGGGTCAGGATTATCAAGATGTCACTTAGGCGATTGAAATTTTTAGCTCCATT
ACCATCTTATGGGACCACCATCCTATAAGCAGTCTGTCAATTGACCTAAACATCATTATTC
AGCACAAGCGTATTTCAAATTTAGAGTTTTACTTTGATGTTCTTCTTTTTTCTTTTTCT
TTTTTTGAGACGGAGTCTCACTNTGTGCGCCAGGCTGCAGNGCAGTGGTGCAATCTCGGC
TCACTGCAACCTCCAGTTTGGGCCACAGAGCGAGACAGCGAGACTCGGTCTCAAAAAAAA
AAAGAAAAGAAAAGTACCTGCC

Sequence 2515

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAAATAAAC
TCAAAGGATAGGTTCAACACCATAATAGAGAGGACAGACAAAAAGAATCTGTGAAGTTGA
AAATTGAACAATAGGAATGACCCAATTTGAATAACAGAGATAAATGAACAGAGCCTCAGG
GAATTGTGGGAGTATAACAAAAGATCTAACACTGATGTCGTCAAAGTCCCAAAGGAGAGA
GAGGGGATGGGGCTGAAAAAGCACCTGAAGAAGTAATGGCTGGAAGCTCCCCAAATTTGG
CAAAACACATAAGCCTACAGATTCAAGAAGCTGGGTGAATCCCAAATGAGAGAAATCCCT
TCAAATTCACACAAAGACACATTATAGTCAAATTTNTGAAAACCTNNCANATAAAAAAGAN
TNGNCAAATNNGGTACCTGCCCG

Sequence 2516

CCGCGGTGGCGGCCGAGGTACTTTTTTCTTTTTTTTTTTTTTTTTTTTTTGGAGACGGA
GTCTCACTCTTGTACCCAGGCTGGAGTGCAGCGGTGTGATCTTGGCTCACTGCAAGCTC
CACCTCCCAGGTTCAAGCCGTTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGACTATAGGC
GCCTGCCACCACGCACAGCTAATTTTTTGTATTTTAGTAGANACAGGTTTCACCACG
TTGGCCAGACTGGTCTCAAACTTNTAACCTCAGGNGATCCACCCGCTCAAAGNGCTGG
GATTACAGGCGTGAGCCACCGCACCCGGCCAGACTCCTTAAATGTGANAAGTAGCACT
GAGGAATGTGATCAGATTATGGCTTGATTGGCACATGGGGTCGCTTTCACGGTTGGCC
TTCTTGTTCTCCACGGCATCTTGTGCATAAGCCATTGCCATTTAGGAGCTCAGCATGC
ACATCCCGGGATTCTGNGCTTGGGT

Sequence 2517

CCGCGGTGGCGGCCGAGGTACCTGTGACATCATAATTGCACCCTCCGACATGATATCTCT
TCCAAATGCTTGATGAAAAAGGTGGGAGGATCACTTGAGCCAGGGAGTTGAAGGCTGCAG
TGAGCCCTGTTTTGCCACCACACTCCAGCTTGGGATTGATTCTTAAAGACTCATGTTAC
GTGAGGAAGCAGCTCAGAAGAGGAAAGGAAAGGAGCCAGGCATGGCTCTTCTCAGGGAC
GCCTGACTTTCCGGGATGTGGCTATAGAATTCTCATTGGCAGAGTGGAATGCCTGAACC
CTTCACAGAGGGCTTTGTACCTGCCCG

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Sequence 2518

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTGGGGCTGGAAGGGG
GGCAGAGTCTCACTCTGTTGTCTAGGCTGGAGNGCAGTGACAGAATCACCGCTCACTGCA
ACCTCTGCCTTCAGGTTCAAGTGATTCTNGCGCCTTAGCCTCOGGAGTAGCTGGGATTA
CAAGCTAATCCCANCTAGGCGTGCGCCACCACACTCGGCTAATTTTNGTTATTTTTATTA
TAGTANAGACGGGGTTTCACCATGTTGGCCAGGCTTGTCTCAAACCTCCAGACCTCAAGTG
ATCCACCCGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGTGCGAGTATATGCTTTTAA
GGGTATCCAATCAAGCTAACTATGGTGATGGAATGTCTCCAGTTCCTCTGTAATACACGT
ATCGTCCAGCCCGGTACCTGCCCC

Sequence 2519

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTGAGA
TTANGGGAGTGTTGATGACTCTTAACAAGCATGCTGCCTTCAAGCATTTGTTTAAACAAG
CACACCTTGACAGCCCTTAAGCCATTTAACCTGAGTTGACACAGCACATGTCTCAGGG
AGCACAGGGTTGGGGTAGGGTTACAGATTAAACAGCATCTTAAGGCAGAAGAATTTTTCT
TACAGAACAAAATGGAGTCTCCTATGTCTACTTCTTTCTACACAGACACAGTAACAATCT
GATCTCTCTTGCTTTTCCCCACAACCTCAGCCTCTCAGAGTGCTGGGATTACAGGCATGA
GCCACCGCGCCCGAGCCTCCCTTTTAAAGCACTTTCTGAAGTCAAGCCTGATTCAGGATTG
CAAGCCTGCAGAGAACTATGGTGTTAAAGCCTAAAAAGATAGAATCCTTCCACACCTGA
GAAGGCAGGTATTTTTAGAAGGAAACACCAGAATCACACTTAAGTCACTGCAAAGGCATT
CATGTTTATACATTTCTGAACTGTCTTACTTGGAACCTTATGNGG

Sequence 2520

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCATGGTGGCTCACGCCTGTAAT
CCCTCCACTTTGGGAGGCCAAGGCAGGTGGATCACCTGAGGTTGGGAGTTCGAGACCAGC
CTGACCAACATGGAGAAACCCCGTCTCTACTAAAAATACAAAATTAGCTAGGCNTGGCGG
CACATGCCCGTAATCCAGCTACTCCGGAGGCTGAGGCAGGAGAATCACTCGAACTCGGG
AGGCANAGGTTGNGGTGAGCTNANATCACACCATGCACTNCAGCCTGGCCAACAAGAGT
GAAACTCCATCTCAAAANAAAAAAGGAAACATGAAGCCTTCCTTNAATGATGATAG
TTTCTAAAGTGAATTATTTGAATCTCTTTGCATGTTTTGGCTCTGTTAATCTAACTCTTG
TCTCTAAATAGATGCTGAAAGTGTAATCTAGATGACTATAACATACACGTNATTGCAAG
TGTATTCAA

Sequence 2521

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGTACTTATTCTTTTTTTTTT
TTTTTTGGTTATGAAAACCTTAGGGACTAAATTAATATAAAATTGGCATAATGTTGGAT
TGAATCTACATTTTGGCAGAAGTTAAACATTCCACATAATGTCAAATTATACATCATG
CAGTTCTGTTTTTTGTTTGTATTTGTTTTGTTTTGAGTCTGGCTCTGTCACCCA
GGCTGGAGTGCAGTGGCGTGATCTGCAACCTCTGCCCCCGGGTTCAAGCGATTCTCCTG
CCTCAGCCTCCCGAGTAGCTGAGATTACGGGTGCGCGCCACCACACTTGGCTAATTTTTG
TATTATTAGTAGAGACGGGGTTTCAGCATGTTGGCTAGGCCGGTCTNTCCTGACCTCAGG
GTGATCAGCCACCTCGGCCTCACAAAGTGCTGGGATTACAGGCGTGAGCCACCTTGCCC
AGCCACATCATACAGTTTGAAATGAAACTTTGCCACAACACAGCCTTGCTGTAGCACAC
ACATATATCACTGAACCTGTTTGNAATAAAAGTTTTTTTT

Sequence 2522

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTNGGTCAATTTGNCCTTAGTTTTTAAAAACAAAAGTGTTAACTAGAATNTAACACAGA
TCAAATCCAAACNCAGCAGTCCAGNGGAGAGTCAAACTTTTCCGGCTTTATTNTNTGGG
AAAACCCCTGGTCTGTTTTCATTCTATTGGNCCAGGCCACCATTNTATGATATGAAGGC
CTAAATTAGGAAAGCTAGGNGAGCTGNGCAAATTNTGGGTGTCTGANCCNCTGTTGTTT
GGCGTGATGGGGGTGGAGGCCCNACAGGGGTGTTCTCGCTAGNGTTCAAATCACAAA
AACAGGGACCGTAACTAGGGGGAGGNGAGCAAAGCNCTCACCTTGGGCACAAAATTTAAG
GNGTGCCAAAAAACCCAGTAACCAAAGATAAATACTNTTTAATGCAACATTTTTAAAAA
ATCCAATTAAATGTAAAAAGTTTTTGATGGACAATGTTTCNAAAATTTTNAATAAAAGG

TABLE 1
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GTTCCCCCGTACTTTTTTTTTTTTT

Sequence 2523

ACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTACACACATTACACTATCCC
TTATCAAATATACTGAATGTAAGTAGGCTGGGTGCAGTGGCTCATGCCTGTAATTT CAGC
AACTTGGGAGGCCAAGGTGGGTGGATCACCTGAGGTGGGGAGTTGGAGACCAGCCTGGCC
AACATGGTGAAACCCCATCTCTACTAAAAATACAAAAATTAGCCAGGCGTGGTGGCACAC
GCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGAACTGCTTGAACCTCGGGAGGTA
GAGGTTGCAATGAGCTGAGACTGCACCACCGCACTCCACCCTGGGTGACAGAGCAAGACG
ACGTCTCAAAAAAAAAAAGTAATTAAGCTTGTTTCGATTACTTAGGCTCATCAATAGT
AAGATCAACATGGTACCTGCCCC

Sequence 2524

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGNCCGGGGTCTTTGTCTNAAAACGT
TAGATCTGGGCTCTGATTCCCTAACTGCCACTCGTGATCACAGAGGTGCAGAGAGTCATTA
GCCATTGTTGCACTTCCATTGTTGCAAGCCCTCACCTTCTGGTTGAAGTGAATTT CAGG
AGAATTAAGAGCTGGNGTTTCCCTCCCCACTCCCATTCATTTTTCTCATTTTCCCCTT
TTGGGAGCCAGACATAAACACAATTGCNTATATGAGAGAAATCAGAAAGTCATGGCACAG
CCTAGGGGATGGTGCAGGCTCAGAAAAGACCTCTGAGAAGACCTTAGATTTATACTTCAG
ACTCATCTTAGGCAAAGAGGGCTTACAACAATCAAAAAACAAAAATAATAAAAAACAGTA
ACAAAAACAGCAAAACCTGNAGAAGAGGAAGAATCTGATTTCCAGAGTTAACACATTAGT
AAATTCTAATGTCTGGTTTTCAACAAAAATACACAAAGGGATTACCAGAGAAACAGGGA
AAGTGTAACCCCATTCAAATTGAAACCTAAAGAGACTTAANAAACAANAGGGATTTAAAG
GTCAAGAAAATTTTTTA

Sequence 2525

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGGAAGGTACAGGGCTT
GAGTCGTAGCCAGGGATAGNATTATGGGTGAGAAATAGACAGGATGGAGGACACGAGGCCA
CAAAGCCCCACAATCCAGGGCCACAGCGCCAGAGGCCTAGTTTGTCCAGAGGAATGAAG
AGATCACAGGCATTTCTGACCACGTNTAGCANAAGTGGGGGATGACCTNTAAGGGCTCGA
GCCAGGAGCNTGACTTGCAGCCCNAGTTTCAGAGCCAGTTGGGGCANACCTCCTCCTGGA
GTCCTGGTCCCCCAAGTCCCCCAGTTTTNATTTCTCCTGTTGGGACTCNTCTTCAAAANCNT
TTAATNCNCCGNNTNNANGNAAANNATTTTGGTTCATTNATANGNCNANTTTNTNAACCT
TNCNGGTTAAATTNATNANTNNGGAAAACNAATTGNACCNNCCNNGCNNAAGCNGACCC
CCNGCCCGTACNTTTTTTTTTTTTTTTTT

Sequence 2526

CCGGGCAGGTACGCGGGGCTTCTGTTGGGCGTTTCTGCTGAGAGGCGGGAGGCGCCGAGA
GTCTGTGCGAAGGTCCGTGGACAGACTGCTTTGCCTGTTGTTGCTCTTCGAGGCGGCCGA
TCCCCGAAGGCGAGCTGAAATACGGCTGCAGGCTACAATTTGCAGCCGACCATTATGGAT
GACAAGGAGCCGAAGAGGTGGCCACCCCTCAGGGACCGCTTGCTCGGATGGCTTCTTA
TTTCCCCAATACCCCATTAACCGTATCATCTGAAGGGGATCCACAGAGTTGTCTTCTAT
CGTGATCTGGAGGAACTGAAGTTCGTTCTGCTCACC GCCTTATGACATCAATAAGAGAGA
CAGGAAGGAAAGGACCGCCCTACATTTGGCCTGTGCCACTGGCCAACCGG

Sequence 2527

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCAAGAAGTAAGTGGA
CACCTTTCCCTGTCATAGTTATTTTCATCCAGACATCTGGTGGAAGCATCAGATTCCGAC
AAACAAGGATTTATGTCAGGATCTCTCAGCCTCTGTGTTACCGAGGGCATTCTAACAGTC
TTCTTACTCCGGCCTCCGCTTCGCCAGCACCCAGGCCGTCTCCAGCTCCAAACACCCCCG
CGTACCTGCCCC

Sequence 2528

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTT
TTTTTTTTTTTTTNGGAANGAGTCTCGCTCTGTCAACCCAGGCTGGAGTCCAGNNGGCAG
ATCTCGACTCACTGCAACCTCCACCTCCCGGGTTCAAGCTATTCTCCTGCCTCAGCCTCC
CGAGTAGCTGGGACTACAAGGGATCTGCCACCACNCCCGGCTAATTTTTGTAATTTTAGT

TABLE 1
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AGAGACGGACTTTACCATATTGGCCAGGCTGGTCTTGAACCTCTGACCTTGNGATCCAC
CCACCTTGGCCTCCCAAAGNGTTGGGATTACAGGCGTGAGCCACCGCGCCCGGCTTACTA
CAAGTCATAAGTTTCTTAAAGGCAATGTAACTCCGAAAACCTAATGCACTCTTATATTG
NTAATACATTAAATCCACTGGCCTGGCTTACACTTTTGAATCAATCTTGAGCCATGCA
TGATTTTGTAACTTACGTACCTGCCCCGGCGGGCCGNTTNTAAACTAGNGGATCCCC
CGGCTGNAGGAATTGAATTTAAAGCTTTATCGATCCCGCNCCTCGANGGGGGGNGCCC
G

Sequence 2529

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTGTTTTATTTTTATTTATGTTGGCAGAAAAGCTGAGGCAGGGCTTCTG
ACATAAGGTAAAAGTGTCTTGGAACATGTCCTGGGTCCAGGGTCTATAACCCCTTGNGGC
CTATGGAACACCAAGCTCTGTGCCAAAGGGTGGAAGGCTGCCCTGCCNCACTACAATNTA
AGCCCAGAGCATAAAACCCCTTGATGCTGNGGAATATATNCANACTCGCTGGCCCCCTTG
CTCNTTGTCTNCCAAGATCACAAATNGATTGCATNTNNAATTAAAAAACCTGNTCTCC
CTTATCNNAAGGTAGCAAGANNCATAGCCAAACCCGTNCAGGNTACCGNTTGNNGCACCA
ATTACCTTTNTNTCNTNACGTCCTAACCTGGCNACCCCTTACNTCANACATCCTAATTAC
CTGGTTTTTTTTTTGGATTCCCAATAAAAAGGGGGG

Sequence 2530

CCGCGGTGGCGGCCGCCCGGGCATGGTACGCGGGGTCCCTACAAATGCAACGTCTGCAAT
AAAGTCTTCACCCAGCGCTGCTCTCTGGAGTCCCACCTGAAGAAAATCCATGGGGTGTAG
CAGCAGTATGCCTATAAGCAGCGGCGGGACAAGCTCTACGTCTGCGAGGATTGCGGCTAC
ACGGGCCCCACCCAGGAGGACCTGTACCT

Sequence 2531

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTGGAAGACCTTAT
TCGATATCTTGAACCAGAGAGATGGCAGTTGGACTTAGAAGATCTATATAGGCCAACTTG
GCAACTTCTTGGCAAGGCTTTTGTGTTTGAAGAAAATCCAGAGTGGTGGATCTGAACCT
TCTAACAGAGGAGGTAAGATTATACAGCTGCACACCTCGTAACTTCTCAGTGTCCATAAG
GGAAGAACTAAAGAGAACCGATACCATTTTCTGGCCAGGTTGTCTCCTGGTTAAACGCTG
TGGTGGGAACTGTGCCTGTTGTCTCCACAATTGCA

Sequence 2532

GGAGCTCNCCGCGGTGGCGGCCGNCCGGGCAGGTACCNCGGGGGTGCCCGNAAGCAGTT
GTTGTTGGTTGGGGCCCTTTGGGCCGCTGACGGANACTGCCAGGTGTTGGNCACCATGT
TCCTCTNCGCGGTCTTTTTTGCCAAGAGCAAGTNANATGNAACAAATAGTCTTTTCGTG
GAAAAGAAAAAATNCGCTCCCTTTNAACGGTGGATTGAAAATGACTNTGNTTTATAAG
AGAACTGAGGGCGGGGATACTGATTCANAAATNCTGTANCGTGAATAAAAG

Sequence 2533

CCGGGCAGGTACAGCTGCATCAGCTGCTCGTAGGACATGTCCAGCAGCTGGTCGAGGTCC
ACGCCGCGGTAGGTGAACTTGCGGAAGGTCCGCTTCTTCTGCTCTACTTCTGCCACC
CGCGTACCACGGCTATCCTTATAGCTTTTTAATTAAATGAAGCCAAGTGGGATTTGCATA
AAGTGAATGTTTACCATGAAGATAAACTGTTCTGACTTTATACTATTTTGAATTCATT
ATTCATTGTGATCAGCTAGCTTATTCTTGTGTACCT

Sequence 2534

GACATGGCGCCCGCCGCGCTTCCCCCCCCGCGTACTTTTTTTTTTTTTTTTTTTTTT
TTTCTTTCTTT
TTTNGGGGGAAATTANAAAANCNTTN
TTCNAAAAAAAAAAAAAAAAAAAAAAAAAANTAAAAANTNTAAANAAAAAAAAAAGGGGGC
CCNGNNCNNTAAAAAAAAAANNGGNCCCCCGNGNGGGNGNAANANTTANAAAAATNTTN
NNANCCCNNGANAANGGGGGGGGNNCNANNNAAAATTTTTTTNNTTTNANGNGGGGA
AAAANGCNCCCTNGGGNAAAAAA

Sequence 2535

CCGCGGTGGCGGCCGAGGTACTTCTTTTTTTTTTTTTTTTTTTTACATCCCATATGACA

TABLE 1
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TTGACTGATTAAAAAGGCCTGATCGGTTTTGTTATCTTCCACACTTCGTTTAATTTAAC
TTGTGTTTTGTATCTCTTATAAACCATAGATAGGCCAGGCGCAGTGCCTCATGCCTGTA
ATTGCAGCACTTTGGGAGGCTGAGGCGGGTGAATCACCCAAGGTGAGGAGTTCAAGACCA
GCCTGACAACATGGTGAAACACTGTTTTACTAAAAATACAAAAAATTACCCCGCGGNGG
GGGNATGCCCCCTGAAAAATCCCACTTCNTCGGGANGGNTGANACAGGGAAAAATCCNTT
TGAACCTNGGAAGGCAAAAGGTTTCNANNGNCTTANAAANCCNNCCATTTGTTNCCCN
AGNCTNGGGNGAAAAAGGGCAAAAATTCCTTCNCCAAAAA

Sequence 2536

GACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCCCGCCCGGGCAGGACAAAAACAA
GACTTTTCATCAACTCTTTTAGATATGCTAGAAGAGCTAAAGGAAACCATGGACAGAGAA
CAAAAAAATTAGGAAAGCAATGCCTCATCCAATACAGAATATCAATAAAGAGATTGAAAT
TGTAAGAAAGAACCAATAGAAATCTGGAGTTGAAAAGTATTATAACTAAACTGAAAA
TTCCTAGAGGTATTGAGCAGCACTGGAGAAGTCAGAAGAAAGAAATCAACAGGCTTCA
AGATAGGTCAATTAAGATTATACAGTCTGAGGAGCAGAAAGGAAAAAGAAATGAAGAAAA
TGAACAGAGCATAAAGACCTCTGGGACTCTATCAAGCA

Sequence 2537

CCGCGGTGGCGGCCGCCCGGGCAGGTACAGAGTGTAAGCGAGCTACACCAAAGAATGGTG
ATTAGCGCTCCCAGGGTGGGGAAAAATGAGGATTGTTTATATAGGCAAAATGGAGGTGCC
AAACAGAATTATAACATTTTCGGAATAAGGCTCATTTAAAGATACAAATTTGATTGGCT
ACTATTGATTACACTTGAAGGGGATTTGGTTAACTTTCTTTGTNAAAGAAAGNACNAG
NNNNTAAGGNNTTTANTTTCCANCCNTTTAAGTCTTAGGTTTTTGAAGAAAAANAAT
ANGGGGGGCTGGGNTTAAATTTTACCCTNNTAAACCCCNAAAAGGNCCAGAAAAAN
AAATAAAAANGTTTGGTNGNTTTTCCACCGACCCAGGCTTGGCAAGGCNCCCTAAT
TTTTTCNTCTTTNGGCCNAAATNCNATTTGGGGAAGGGCCNAGAAATGNTTTTTNTT
TTTACCATTCCCCTNTTANTGGGNAANNTT

Sequence 2538

CCGCGGTGGCGGCCGCCCGGGCAGGTACATCACAACAGTAAATTTTGCTCTTTGCTTCT
GGAGGAACACCCTACAACAGGTAATTAATAATTAATAATGAAAGGGGAGCTAA
ATACCTGAAAATTTAAACAAATGAAGCAAAAAAAGGGAAACAAATTCATTGCAAGAGA
TGGAAATTACATTTAAAGGCTGAAAATAATAAGAAATTCATAACAACNNGGCCCTAT
TGNCTGGCTCCTTCAGAAAAGATTACTGGAANGGAACCTGGGAAGGGGGTTGNGGAA
TACAAATTTTTGGGANTTNGGGGGAAANTTANCACNGNGNGGAAANCCCCCNNGNACC
CCNTTTTTTTTTNGNGNCCTTTTTTNAAAAAAANNGGTTCCCCNNGGNCCNAA
AAAAAAAANTAAAAAATTTTTTTCCCCCCCCCTTTNAAAAANNGGGGCCCCCCC
CCNNNGGNNGGNATTTTTNNNTNNNTTTTTTTNCCCCCCCC

Sequence 2539

AGCCTTGGAGCAGGCAATGATCTCCACCCTCCTGGGTGCGGGTGCACTCAGGCATCCC
TGCACTTTGGGGCCTGCTTTTGCAGGCTCGGAAGTGCTTGCCTCTGCAGCTTGGCTTC
TCCCTGCTATTGGCACCAGCTCTCAGATCAAAGCAGGGGGGTAAGCCTGGAAGCCATGAA
CAGGGAGGGCCTGAAGGCTGAGGGCCAGGCTGCCAGTCCACCTGTAGGAGTGGGAAGT
GTGCCTTTTCCAGGCCAGTAAGTATGCACTTNTCCCCGAGGCCCGTAAATGCCCCAG
GCTCAGCCAGAACTGAGCAGAGGGTGGGACGACCAGCAACAGG

Sequence 2540

CCGCGGTGGCGGCCGAGGTACTAGTCTCAAAGCTGGGGACTCTGAGCCTTACCTAGAGT
CTCAGCAGGTGGACCATTAAGATTAACATTTCTAGTAGGTGAGTTCAATCACAAAAATAT
TTCTTGTTCCATAGATTTTATTGTGGCCATGTCAGTGAACACCCACAAGTTTTGCTCAGA
ATATTTAGGTGTAAGCTAAATCCCTAAATTGTTGAGAGTTCCACAGCCCTGTAGCAGC
AGAGCGAGAACTTTAACCAGACTTTTTCAATCCCAAAGCTAATCTGGAGGCCAACAGTGT
TCAAAACCTTGGTGAAGTGAAGGAACCATTTAGAGTTTTTTCAGGCTCAGGAATCACATGG
TCGTTGTTGGGCTTGGGGTAAGTTTACAGGCGATGAAGCTTGACGTTGAGTCACTTGA
CTTCTGGAGCCATAATTTATTTCTCCAGCAACCTCCT

TABLE 1
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Sequence 2541

CCGCGGNGGGCGGCCGAGGTACTCAATGGAGTTCCTTGGGGGGATCCAAAACCNNGGAGAG
GAACACAGGCGCTGAGTATGGAGCAGNNTNGAGACCCACCCACCTGCAGGCCTGACNAG
AGCGCCNGGATNTCTGGTTCNGATGCCAATACTAGACACCCCAAGNAGNCNGCTCACAGN
AACNNTTACCTNNTTTTNAACGCCCTGGGCCTCGCNACGCGCACAGAAANGGGANCATA
ANCNNCNGAAAGGNACCCACTGAAGCCCATTCTCCGNNAGNANCNNNGNAANNNNNCAG
CTNNCNCCTCCGCTAAGGAAGANANCNAGNNGGGGANCCNGGCCCNCAACCNCNNG
GAACCCAGCAGNNCNGNNANANCCCCNCGNACCCNAGAAGAANNAAGACGGNNAAANACN
GGGNGGAACNNNNANAGANAACACACNNNNNAANAGAAAACGCNNAAGGAAGNNAGNA
CCNGNCCGGGCGGCCGNNCNAAGAACAAAGGGANCCCCCGGGCNGAGGAANNNGANACAAGC
NAANNGAACCGNCGACCNNGAGGGGGGGNCCGGACCCAGNNNNGGNCCNNAANGAGGGN
AAANGNGCGCNNGGGAANCANGGGCANAGCNGNCCNNGGGNGAAANGNAANCGNNANAA
NNNNNANAAAAANNANCCGGAGCAAAAANGGGAAAG

Sequence 2542

ACTATAGGNTTTTATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGGACATTATTTTT
TCTATTCATCTAGCACNGAAGCCAAATTTGGGTCTAAAATCTTGTGATGGCAACCAGGAG
CTTTAAACTTCCTTCGTAGTGATCTCATTGAAGTTGCAACAAGGTTACAAAAAGGAGGA
CTTGGATATGTGGAAGAAACATCAGAATTTGAAGCCCGNTTCATTTATTAGAGAAATTG
AAGGATTTTGGTGAGTGTGTGATTGCCCTTCAGGCCAGTGTCAAAAGAAATTTCTCCAA
GGCTTCATGGCTCCCAAACAAAAAAGAAAAAAGTACAACTTA
GAAGAAATTTGGAAGATAGAAACANGATAGAAAATGAAAATATTGNCAAGAGTTTCAGAT
AGAAAATGAAAAACANGCTAAGACAAGTTTGGGAGAAGTTTAGAAAAGATAGAAAAATNTA
AANGCCCAAATTTGGGATAAATAGCNCTGAAGAAAAAAGAAAAAAGAAAAAAGAAAAA

Sequence 2543

CCGGGCAGGTACTAGANNACCTTCCTCGCCACTCTCTCCACATGAGAGAGTCAGCTGCCC
TTTCTCCTGTGCCTCTGCAGGAAGAACTCTCTTGCATGGCACATCTCAGCTCCTCATTGA
GGGATAGTTTTCTTTGATAAGAAACCTGGAGTCCATTTACTCTGACCTCTCTTTAAATCT
ATATCCAGAGCCACTAGCCAGGAAAAAATTTGGGTGACCCGTAATTTCTCTTCTCCTGCT
GTCCTTTTGTCTTACGCCCCACCCCAACTCCCTTAAATTTTACAGGCTTATGACAGTT
TGTATGTGCTCAGCCAATGAGCAGAAAACTGGAAAGAATTTCTGGACTTTAGCCCACCA
GTTTGTCTGGTTGACTAACCTGCTGAGAGCTAAAAATTGGCACCCATTGCCCGTGCCTT
CAGGCAGTCTCCTGGGGCAGAGTATGCCACCATCCGAATATCAGGCACTGAGTGGGGATG
TGGGTGATGCTCAACATGACTGGCTAGAGCTTTGGGGGTGGGNNGGGGTTAACTACTA
TTTTTTGGCCATGANCTNTTCCCTTCTTTTTTTTTTAATTAATAANGGNTCAAN
TAAATANTTCAAGGCCTGCCTTTNAAAAAATTTTTTTTTA

Sequence 2544

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTATTTCA
TATATTGTGTGAGCCCCACAAATGTCTATTTTAAAAAGAGTATAGTCCCTGGCCAGGCGC
GGTGGCTCACGCCTGTAATCCAGCAGTTTGGGAGGCCGAGGTGGGCGGATCACCTGAGG
TCTGGAGTTCGAGACCAGCCTGACCAATATGGTGAAACCCCGTTTCTACTAAAAATACAA
AATTAGCTGGGCATTGGGGGAGCATGCCTTGTAATCCAGCTACTCGGGNNGGTTGNGGN
GNGGAAAANANCTTTGAACCCCCCNANGGCCAAAGGTTTTTTATTTGGGGCCAAAAAA
ACNCCCTTTTGCCCTTCANCCCNNGGGNNAANAAAAAAGGNGGAAACCNTTCCNCTN
CCCCAAAAAATTTTTTTTAAAAAATTTTAAAAATTTCAAAATTTAA

Sequence 2545

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTCTTTTTTT
TTTTTAGTTTTTGAATCCCGTCTCTACTAAAAATACAAAAAAGAGTATAGTCCCTGGCCAGGCGC
TGGCCGGGCATGGNNGGCGCATGCCTGTAATCCAGCTACTCAGGAGGCTGAGGCAGGATA
ATTGCTTGAACCCGGGAGGNGGAGGTTGCAGTGAGCCGANATCGTGCCACTGCACTCCAG
CCTGGGCAACANAGTGAGACTTTNTNTCGGAAAAAAGATCTGGNNGGTGAA
AATAACCNAAATGAAATAGCTTGAAAACACANGNGGGAAGCTCCCTTTTACCCTTTT

TABLE 1
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TNTTCCCTTGGCCNGATGGAATCCNNNCCCTTTTTANAAAAAAGGGAAAGNCCNCTT
TTTTTTNAAAAANANTGGTTNTNAANATTTTNCNCNCCCCGGGGGGGGGGNGTTATTA
AAAAAANGGGGNCCCCCCCCGGGGNGGGGAAAATNNNTTNAATTTNTTTNCCCCCCCC
CCCCNGGGG

Sequence 2546

CCGCGGTGGCGGCCGCCCGGGCAGGTACCTCCATTGTTTCTAGGAAGTAACTAAGTGGT
TTTGATTTTACAGGCTTGTAGGTGGAATGGGCTTGCCTTGTCTCAGATGAGACTTTGGAC
TGTGGACTTTTGAAGTAAATGCTGAAATGAGTTGAGACTTTGGGGGACTATTGGGAAGGCA
TGATTGGTTTTGAAATGTGAAGATAGGAGATTTGGGAGGGACCGGGGTGAAATGATATGG
TTTCGTCTGTGTCCCTCACCCAAGTCTCATGTTGCAAGTCCCACAATTCCCACGTATTG
TTAGAGGTGATTGAATAATGGGGGTGGGTCTTCTGTGCTGTTCTTGGGATAGNGAATG
GGTCTCATGAGATCTGATGGTTTTAAAAACGGGAGTTTNTNTGCACAAGCTNTCTCTTTT
NCTGCTGCCATCCATGTAANATGTGACTGGC

Sequence 2547

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGACCATGACACCA
AGCATTCTGTCCCCTCCCCGCAATGGCAATCAAGTGTACAGAAAAATAGCCTTTTAA
AATTACCATGAGCCTTTTATTTTATTTATTTTACACCCAGGCTGGAGTGCAGTGGCGT
GATCACGGCTCACTGTAGCCTCAAACCTCTGGGCTCAAGCAATCCTCCTGCCTTGGCCTC
CCAAAGTTGGNTNAGGGTTGATGAGCCACTGTGCTCAGCCAACCATGAGGTTTTTAGAGA
TGATCTTGTNTAAACCTTCTCGCCTGTTTTGCAGAAAAGAAAATTGAGATCCCAGAGAA
ATGAAGTAACTTGCCCAAGGTCATTCAGCAGGCAAGATAGAAGTAGATCCCCAAATTGCA
AACTAGCTGNCCAGAGTTCTTTCCTCAATGAGCAATTTAAAAAGC

Sequence 2548

CCGCGGTGGCGGCCGAGGTACTAAGTGTCTGGGATCGTAGTCGATTAAACAGAGCCACCT
TTGTTCTTGAGGCAATGCATAAGTCAGCATTTTTCAATGACTGCTTCTTTTTGGAAGGTT
TGGAGATGACTTTTATCCGCTTGTCTGAGGAACACACCAATGTCATCACTGTTGCCATAGA
ACATCTTTACAGACAACATGAAGTGCTTTCGCTTGTCTGAGTCAGATATATAAATGGTT
TGGCTGGTGCCATAAGTTCTTTTNTTCCAGGTTAAGCTGGCTGCATTTTNTTGGTCACT
ATTTCTATNCCAATAAATGCACACNGGTGAGACTCTTGTTCAAAAACAACCATCGCGGT
CCATTTGGTCTTTTTTTTTTCTTCCATTNCNTGGCCATAAGATATCCAAGGGGGGNGGGC
AAAAAAGTGGGAGTTATTTGTATGCCAAAAAGACACAGCCAAGAGGACTTGNGGATCAT
GCCCC

Sequence 2549

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTGGCATAAAAAAGTGACAAGTTTGTCTATGTGTTAAACATCTTAATTT
GGATGTATTTTATCCAAATGATGCATACTTGGATGCATTAAGACACACCAACAAAAA
TNCNCNCTNTAACAATAANGGGNNNTTTNNAANGGNGNCGGGGAGNGGNAACAANATTT
NGGTANANGGGANNTTNTTTTTTTTNCNAANAAAAAGAGAATTTGCTTTNTAAACAAN
AATTTTTTTCCCNCCANATTTAATTTGAAAATNTGAAAGNTATNGGAAGGACANNCNCC
AATTGGAACACNNTGTGCAAAAGTTCNANAACNAAANAAAAGATNNTTTTCTNGGTTNGG
GCNCTNANNCCNTGNAATTCAANATTTGGGGNNGGNNGGNNCCCCNTTTTTTTTGGGGGG
GNGGGGGNTTCCCNCCCCCCCCCCCCCANNNNGGGGGGAAANCNTTTTTTTTTTAANNAA
AAAAA

Sequence 2550

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGTGCTGAAATC
CGGCATGTTCTTGTCACTGGGTGAGAAGATGACAGAGGAAGAAGTAGAGATGCTGGTG
GCAGGGCATGAGGACAGCAATGGTTGTATCACTATGAAGCGTTTGTGAGGCATNTCCTG
TCGGGGTGACGGCCCCNTGGGNGGACNNCCCCCANNGGNCNTAAANGGGTNANAACNNT
CCNGTTTTTCCCAAANGCCCGNCCCCTTTCCNTTGGGANAANTTTTTNTTCTNCCNCA
AAANGTTNCCCTAGGNTTTNTTGTNCANNAANTTTCCCATTTTGTNTNTGGGANGAT
GTTTNGCCCGTCANNTTCCACCAATAANANTTNTTTTTGGNAAAAAATNNTAAANTN

TABLE 1
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NNNNCNTNNNNNNNAAAANCCCCCCCCCCCCCTATNAAAANTNAGGGCCCCCCCCCGNNN
GNAAAAAATAANANTAAATTTTTNCCCCCCCCCNCNCNGGGGGGNGGCCCCCCCNCT
TTTTTTTTTTNTAANNANCCCCCCCCCCC

Sequence 2551

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTGTCTCACCACATCCTGGCTCCA
GTGTGGATGCAGAGAGAGTGTGACAGAGGATCTGCCTGCGAACCACCTGGGATTAGTCAA
GTCCCAAGGTGCCAGAGTGGGACTAGTTCCTCACAGTGTGGCAGCTGCACTAATCTGTT
TGTGAGGGAATATCCATTCCCTCACTCTACTCTCNTCATTATGGGAATTTNTTTTTGTTN
CAAAATAAANCCCTTTTGTATAGANAAAAAACCNCCCCCCCNNTTNA
ANAANGGGCCCCCCCCNGGGGGNGNANNNTTNNAAATTTTTTTNCCCCCCCCCNGG
GGG

Sequence 2552

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGGGATCTTTTGGCAN
GAGCCCCAAGTAAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTCAGG
GAGGTGTGTTGGCCGGCGATGTCACGGATGTGCTGCTCCTTGATGTCACTCCCTGTCTC
TGGGTATTGAACTCTAGGAGGTGTTTTNCCAACCTTNTTATTGGGATTNTNTTTTCC
NNCCCAAAAGNGCCGGGTTTTTTNNTCCCCNTNNNGGNAACCCNGGGGGGAAAAAA
AAANGTGGTTCNNGGGNAAAAAANTNTTTAAAAAANATNTTTGGNNNNN
ATTTTTTTTTGGGANAGANNCCCCCCCCCCCCCGGGGGGNNNTNTNTNAAAGAANN
TTTNNNTTTTNCATTTTTNCCCCNNNNNGATAAATNCCCCCCCCGGNNGCCTATATAA
AAAAAANCNCCCCCCCCGGGNNANAANTTTTNAATATTTTTCCCCCCC

Sequence 2553

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCTTTTTTTTT
TTTTTTTTTTTTTAAAGACGGAGTCTCGCTCTGTCGCCCAGGCTGGAGTGCAGTGGCGG
GATCTCGGCTCACTTCAAGCTCCGCCTCCAGGTTACGCCATTCTCCTGCCTCAGCCTC
CCGAGCAGCTGGGACTACAGGCTCCCATCACCACGCTCGGCTAAGTTTTGTATTTTAG
TAGAGACAGGGTTTCACCATGTTAGCCAGGATGGTCTCGATCTCCTGACCTCGNGATCTG
CCGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGTGCCAGGCCAATA
TGAAAGTTTTTAACCTATTGGCACAANAAGTTTTCATGAACCTAACAAATATTTAATTAAC
AAGTATTCTTCAATAACATTCCTT

Sequence 2554

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTT
TTTTTTTTTTTGGAGCGGAGTTTCACTCTTGTCAACCAGGCTGGAGTGCAATGGCGCAAT
TAGGGTTCACTGCAACCTCTGCCTCCCGGGTTCAAGCAGTTCTCCTGCCTCAGCCTCCTG
AGTAGCTGGGATTACAGGCATCCACCACCGTGCCAGCTAATTTTTGTATTTTAGTAGA
GACGGGGTTTTGCCATGTTGGACAGGTTGATCTCAAACCTCCTGACCTCAGGTGATCTACC
CTCCTCGGCCTCCAGAGTGTTGGGATTACAGGCATGAGCCACCATGCCAGGCTGCTAAT
TCTCCTTTTAGGNGAGTTAGGGGAACTGAGCCTCAAAAACTTAAACGATTTCTCAAAA
AACACCTCAAGTGATAAAGTGGCCACATTGNAAAGGGAGTTTTATCTTTTTATTGNNNG
CCCAGGGGTCAATTGGACAAAATCATGCTACCTNTTGGATTTTAAATATTCAATTGGCAA
A

Sequence 2555

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGACTCAGAGGC
CGCCATCAACCCGCCAGATCAACCTGGAGCTCTACGCCTCCTACGTTTACCTGTCCATGT
CTTACTACTTTGACCGCGATGATGTGGCTTTGAAGAACTTTGCCAAATACTTTCTTACC
AATCTCATGAGGAGAGGGAACATGCTGAGAACTGATGAAGCTGCAAAACCAACGNNGN
GGCCGAATCTTTCTCAGGATATCAAGAAACCNAACTTGTNATTACTGGGAAAAGCGGGC
TTAATCAAGGGGGGTGGGCCTTTANNTTTTGGNAAAAAAGGGNGAATTNATTTCTNTTT
TTGGGAACAAGNAAAAACCTGGGCCAAAAA

Sequence 2556

CACTACTATAGGGCGAATTGGAGCTCACCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTT

TABLE 1
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TTTTTTTTTTTTTTTTTTTTNAGACAGGGTCTCCCTNTGTCACCCAGGCTGGAGTGCAGT
GGCACAATCATGGCTCACGGCAACCTCGACCCCTGGGTCCAAGTGATCCTTCCACCTCA
GCATTCCACAAGATGATGGAACCACAGGCATGCACTACTATGCCTGGCTAATTCTTTAT
TTTTTNGNCAGACAGAGGTCTCCCTATGTTGCCAGGCTGGTNTTGAACCCCTGGGCTNA
AGCTATCCTCCCGCCTTGGCCTCCCAAAGNGTTGAATTANNNGGAATGAGCCACTTTTTG
GGCCTNGGCCTCNANTTAATTTNAAAANGGNGTTTGNNTTNAACCNCCGCCCTTTAAA
AAAAAGGGGCACCCCCCGGNGNGGGGNAATTTTNAANNNAATTTTTTCCCCCCCCC
CCCCCGGGGGGGGGGNGCCCCCCCCCTTTTTTTTTTTTAAANNAAAAAAAANCCCC
CCCCCCCCAAAAAAA

Sequence 2557

ACTNCTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACTTCTTGTCAAATT
CCTTCTTGATATGAGCCGCAATGCCCTCTCTATGTTGTATTTCTCCAGCGCCTGAGTAG
CGCACTCCACCGAGTCCTGTTGCATCTCTCCGACATGTCCGCATTTTGATCACGGCCT
TTCGGTCGCCCCGCGTACCTGCC

Sequence 2558

CTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACTACTGCTGAGGTCTNCAG
GACAGAAGNCACCTCCTNTGGTAGAACATNCATCCCTGGNCCTTNTCAGNCCACAGTTT
GCCAGAAATATCCACANGAACAAATGACAAGGCTTTTTGCCT

Sequence 2559

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTATAGGGGACACGGTCTATCCGCAA
GCTGNGGATTCTGCCATTCTCATCATAGTTTTGAAGCCGGGTTCTGAAATCTCATGACA
GATCTCCAGCTTGAACACGGAATGGTTTTCTAGGCCCTGCTCATAATACAGCTGCAG
GTAACCAGNGTCTGTCACTTTGACGAANATCGGTCCCCAGTGCCTGGAGGACATGATGTT
TTTNTTCTCAGGGATCCTCAACATNATTGGCCACCCGTACAGAGGCTGGGACCGTGCTGA
TCCAGGCGGGTGAGCATNTAGTTCAATCCAGGCTACTGGGTATCATCAGGTAGAGTTGC
ACTGCCAAAGTGATCAGGGTCATTAATTTGGAGTTGTTGAGTTTTCAACAGCATCAGA
AGTGNGACTGGGTTTTGCTTTGAATCATCNAACTGGATGGCATCCTTGGNAGATGACAA
TGAAGGGAATNTNTTTGGCTTT

Sequence 2560

CCGCGGTGGCGGCCGCCCGGCAGGTAAGGGCCGGGTGCAGTGGTTCACGCCTGTAATCC
CAGCACTTTGGGAGGCCGAGGCAGGCAGATCACGAGGTGAGGATCGAGACCATCCTGG
CTAACACGGTGAAACCCTGTCTNTACTAAAATTACAAAAANTTANCCGAGCNTGGNNATG
GNNGCTTGNAATNCCAANTNTTCGGAAGCTTAGCNAGAAAATNGCTNAACCTTGGANGNG
GAGCTTTGANTGAGCCAAAATCCCNCCNTTGNACTCANCCTTGGGGGAAAAAACNGNAA
NTCCTTTTTTAAAAAAAANNN
TTGGGGACNCCCCCGNCCNNNNNGGNAATTTTTTTTNAAACTTTTTTTNTNCCCCCCCCC
CCCCCNGGG

Sequence 2561

NCTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTT
TTGATTGTTATTTAGTTTTATTTTATAATCATAAACTTAACCTGCAATCCAGCTAGGC
ATGGGAGGGAACAAGGAAAAACATGGAACCCAAAGGGAAGTGCAGCGAGAGCACAAAGATT
CTAGGNTCCTGCGACCAANGGGGGGGGNGGCCNNNNNNNNCCNAAAAAAAANNTTN
GGGGGTTNAAAAAANCCCCNTNTTTTTTTTTTTGNCCCNCCCCANCCNNGGGGGGGG
TTTTTTTTGNGGGGGGNTTGCNATNCCGNANCCCAAAGCGCTCATGCCNCANAAA
NAANANTCCGNGCCTTTTTTTTNCNTTGNGNCAAAACCNCANTGNGCTTTNGACNNCCAC
CCNCTTCATTTTTGGGGGGGGGCAAAAAAANCCCGGCNCNCTTTNGGGGGGGGGG
CCNTTTTTTTNAAAAAANANNCCCCCCCCCTTTTTTTGNGANNAGGATTTTT
TTTT

Sequence 2562

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTTTTTATAGGGGACACGGTCTATCCGCAAGCTGGGGATTCTGCCATTCTCA

TABLE 1

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TCATAGTTTTGAAGCCGGGGTTCTGAAATCTCATGACAGATCTCCAGCTTGAACCTCACGG
AANGGTTTTTTAGGCCNTGNTAATAANNAGNTGCAGGNAACCAGGGTTTTGCNATTTG
NNCAAAAANCGNNCCCAANGNCTGGAGGACANNNTNNTTTTTNTTTTNAAGGATNCTTAAC
ANTATTGGCCNCCCGTAACAAGGGTGGGACCGNCCTTATCCAGGCGGGNGGGCTTTTTAG
TTCAATCCCGGCTCTGGGGNANTANTNAGNAAAAGGTNCCTTCCAAAGGAANNGGGGCAA
NAATTGGGNGGTNNTTNGGNGTTTTCAACCCNNANAAAAGGGGGCCGGGGGGGTTTTTT
TTAAANAAAAAAAATGGGGGCNTNTTGAAAAANAAAAAGGGAANNTTTTTTTT

Sequence 2563

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCAGGTGGAGAGAGGGTGAAAGTGA
GCAGCGGGCTGGGCTGGAGCCGCACAGCTCTCCTCCCATGTTAAATAGCACCTTTAGAA
AAATTACAAAGTCCCCATCCACAAAAAAGAAAAAGTACTATTCTAGTCTTA
AGAATAAAGACCNTGTTAGCCAGGCGNGGGGTTGNCNCNTGTANTCCNACNCNTTNGG
GNGNTTGGGGGGGCAAAATCCGGGGGTGAGGGCATTGAGACCAGCANCCGGGGTCAAG
CTTTGAGACCCAGCCTGGCCAACATGGTGAACCCCTGTCTNTACTAAAAATACAAAAAT
TAGTTCGGCATGGGTGGTGCACACCTGGTAATCCTAGCTACTCAGGAAGGTGAGGCAGGA
GAATCACTTGACCTAGGAGGCGGAGACTGCAGTGAGCCAAGATTATGCCAATGCACTCCA
GTATGAGTGACAGAGCAAGACTTGTCTCAAAAAA

Sequence 2564

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGAGCTC
GGATTTTAAGGCAGTAGCCTGCTGATGCTCCAGCTGAATAAGCCCTTCTTCTACAAT
TTGGTGTCTGAGGGGTTTGTCTGCGGCTCGTCTGCTACATTTCTTGGTTCCCTGACCA
GGAAACGAGGTAAGTATGAGACAGCCGAGGCAGCCCTTAGGCGGTTAGGCCTCCCTTGN
GGAGCATCCTTGAGGCGGTNTCCCCCCCCCGGGGCCCTTAAAAANANNCCCCCGN
AAAAAANACCCCGGGGNNCCCNANNNAACGGNGGGGNCCTTTTTTGGGGNNNAA
NAAAAANCCNCCCCACCNCANNAANNACTNTTTTTTTTNCNCNTNNTNAAAAA
AAAAAANAAAAAANNTTCCNCGGGGGGGGNTTNTAAAAAANNGN
GCCCCCGNNGGGNGAANNTTTTTNAAAATTTTTNCCCCCCCCCCCCCGGG

Sequence 2565

GCGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGTTTTTTTTTTTTTTTTT
GCTGGTAGGAAATGCTTTAATAAAATGCAATCTCTAAGGGGCCATGGCATCATTAAAG
AAAGGATGTCATGCCAGATCCANAACCTGAAGGTGGCNGGCACCAGCAAGCACCATANT
TTTGAATNGCCTTNCCTTNCAGGGTCTTANTTTCCACNNNTGTTACTTTTTTNCNC
CTTGAAAAATGGANNAACNTGTTNCNCNCCTTGGGTTTNTTAGTNGGGAGGGAACCTT
TNGTCCANCTAAAAATNTTGNNGCGNGGGCCANTTTNGGGGGCNTTTNGTTTTTNANN
TTGGCCCCNNGGGGGGCGNGGGGGGNNCCCTTTGTTNNNCNNNTANGNNNAAAAANT
TTTTNNNTCNGGGGNAAAAA

Sequence 2566

NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGAAGAAGAGG
AAGAAGAAGAAGCAGAAGGAATGGAAAGCCTGGAGAAAGAGGATGAAATGACGGATGAAG
CAGTTGGAGACTCTGCTGAGAAGCCTCCTTCTACTTTGCCTCACCTGAGACTGCTCCAG
AAGTGGAGACCAGCAGAACTCCACCAGNTTGTGAACCCCAACCCTTCAATCAAGAAAAG
ACCTTTGATCAGGAGAAGACTTCTCGTTTCATTTTGGGGACACATTGAGGATTTCTTCAA
AAGCAGTGAGTAACATTGAACCCCTCTTGCTTCTGCTATTCTGGTCTNTCTCTNATANAAA
TTGGAANAAAACCCCGGNCCCTTGGAGCCTTTAAATGCCAAANGNNNGCNCCTTTNAAA
ANTTAGGGNANCCCCCGGGCGGGGGGNNATTTTTTTTAAANTTTTTTNCNCCCCCCCC
CCNTGGGGGGGGGGCCCCCCCCCNNTTTTTTTTTTTNTTNAAGNNNGNGNANANNCN
CCCCNNGGGNAAAAA

Sequence 2567

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTNCTTTTTT
TTTTNTNGNGGACTTGGGCTTCTGCCCCATATTGCANTGTTGATGTTCCAGAGTTCT
ATCCTTACTCTAAANGATCTCCATTTTGAGCTTATCCACACAGNGGACTGTGGNTTNC

TABLE 1
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GGTCTTNGNNCTTNTGCCTAGGACNTNCTTTCTAGGTANCCACATGCCTGCTCTCATT
TNTTCATGTCTTAACTCANAGGNCAACTTTGANTTAANGCTTTCTATNACTACATTNAAN
ANNGTGNGACCTTTCTNTGTCTNCCCANCTNGCCTGATNTTTNCTTNTCCATTGCACTTNT
CTTNTGACTTCT

Sequence 2568

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGGATT
TCCGNTGAGTGACCCTTACAAGTCCTTCTTGATCCTGAACTGGGTTAGGTGCCGCTGNTG
CTGCTCGTGTTGAATCTAGAACCGTANCCAGACATGGNACTGGAGGACGAGCAAAAGATG
CTTACCNAATCCGAGATCCTGANGAGGANGAAGAGGAAGAGGAGGAATTAGTGGATCCC
CTAACAACAGNGAGAAAAGCAATGCNAGCAGTTGNAGAAATGTGNAAGGCCCGGNAGCGG
TTAGAGCTCTGTGATGAGCGTGTNTCCTCTCGATCACATACAG

Sequence 2569

CCGCGGTGGCGGCCGAGGTACATTATGTTTTCGTTTTATTTCATCTCAATAGTTTCTTCT
TGGAGATTTGGGGGAAAATGATAGACAGGAGGCAGGACTAGATTGCAGCCCTCACCCGG
ACAGACAGCAGCTCACAGGGACTCGCATCATGAACTTTGGCTCCAGAACTACTGCAGGAA
TATACCAGGAAAGCCAAGAGAATCCACAGACCCTCTGAAGGAAGCAGATTGCTCCTTCAG
GACCCAAGAGACACCCTAAATACTGTGTTGGTATCGTTGGCAGAGAAACCTCAAGACGGT
TCACATTACAGGACTCTGTGCAGACAACCCTCGGTACCTGCC

Sequence 2570

AGGTACTACAAGAACATCGGTCTGGGCTTCAAGACACCCAAGGAGGTGCGGGGAACCTCA
GAAGAAAGAGGGGAACCTGGCGTTCCCTGCACGTGTGCCACGACGAGTTGCCCTGCCTG
CATCTAAGTGGCTTCTGGGGCTGCTGGGAATTGTAGTTGCTTCCCTGAGGCCACGCCCT
GGCTNTTTAAGGAACCGCCCGCCCAAGGCTCACTCCTTTATCTTCTATCCTTTTCAGG
CTATTGAGGGCACCTACATTGACAAGAAATGCCCTTCACTGGTAATGTGTCCATTGAG
GGCGGATCCTCTGTTAAGTGCGGGAGTTACTGGTGTNTGGGGCCTGAAATACTGAAAG
AAGGGTCTTGGGGCCCA

Sequence 2571

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCNGGCCGGGTACCCCATNACAG
NNGNCAANCNGNCTGAGGAAGTGGCNCCTACCANGCAGGNGATCTTNCNGGAGCGGTTGG
CNGCAGNGCCNGAGTTNACCCGGTNTTNGGCCCTGTTCAAGTNCTNACCTGANCCCATG
GCCCTACCCNGTANAGACGGAGTNTGTNATNCGNCTGCACCAANCACACNTTCNNCAA
CCACATGGTTTTNANNTNGNCTGCACAAACNCACTNAATGACCNACCTTGGANAATGT
NNCAGTGCNNATGGAGCCCANTNGGCCCTATGAGGTGCTCTGTTACGTGCCTGNCCGGAG
CCTGCCCTACNANCANCCCGGGACCTGCTACACACTGGTGGCACTGCCCAAAGAAG

Sequence 2572

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNNNGNCCCQGGACGCACAGNAAANN
CNTGTNTTNGTNGGNNTNTCTATNAAAAGGCAATCAAGAAAGATAATGTGAAAAAGANA
GGAATTNATAGGTGCGGAANANATGAATGTCAAGACATTTGAAGAACTATAGTAAATGA
TCAACACTAAATATACTNAGAGAAANCTTTGTTAATATGCCAATGAGGTNGGCCTGATCT
TTGAAATAGTGAATAGGAATNCAATGCATTTCTCAGTGATCACTGATTANGAATGAGTT
GGTNNGGATCCTTGGGA

Sequence 2573

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGGAAGCCTGGTTGAAGTC
TTTTCTTGAGAGGCCTGGATTTGTTACATATTGAGATTTCAACTGGCTTTATAACAGG
TTTCTTATGTGCCTCATATTGGCTCCAGGTTCACTGGGTTTAAAGGAGGCCAAAGCACC
ATAAGGTTTTGGCAAAGGAAGAGTGGCATCTGCTTCTGGGATGTAGGCATTGCGACGCTG
CTCTGCAGTTGTGTAAACACCATTTGGGCAGCTGGCGATTATCTGCTTCCAAGAACTCCTG
AGACTTTTCAGCGATGGCCAAGGCGTGCATTTCTTCATCTCGAAGGACTTTCAACCATTC
TTTCTCAATTTCTTATTGAGTGGCAGACCTTTTTCTA

Sequence 2574

TGCCGGTGGCGCCCCGAGTCCGCTTGTCCGTCTTNTCTCTGACTGNGGTACNNCGGG

TABLE 1
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GCCTGTCTCTGCAGAGGTCANGGGAGGGCNGGGGCCCCAGCACACGTTCCNCAGTGGCAGC
GNGGAGCGGCAGCTTACGGGTTTCGCGGGAGCCCCGACCCCCCAAGGGCTAGAGGAGCNC
TCGGCGGACCAAAGAAAGCCCCGGAAGCGGNTGCGCGCCNACCAATAGGTGCGGGGCTCG
GAGCCNNACAACTTGCGCCGTACCTCCNTCCGCCCGCCCCGNCNCCNCCGCCGCCGC
CGACTCCCCCTACTCCTGCTCCTGCCTTGGCTCCTCCGCCNAACGTNTCGCACTCCGAGA
GCCGNAGNGGCAGCGGNNCCGTCTGCCTGCAAAGAG

Sequence 2575

CCACGCGTCCGTTCCAGNCAGTTCATCCAAGGGAGAATTAAGTAGAGAAATTTGTCTG
CAATCTCANNGGNNNGACAAATCTACGACACCAGGAGGAACAGGAATTAAGCCTTTCTG
GAACGCTTTGGAGAGCGTTGTCAAGAACATAGCAAAGAAAGTCCAGCTCGTAGCACACCC
CACAGAACCCCCATTATTACTCAAATACAAAGGCCATCCAAGAAAGATTATTCAAGCAA
GACACATCTTCACTACTACCCATTTAGCACAAACAGCTCAAGCAGGAACGTCAAAAAGAA
CTAGCATGTCTTCGTGGCCGATTTGACAAGGGCAATATATGGAGTGCAGAAAAGGCGGA
AACTCAAAAAGCAAACAACCTAGAAACCAAACAGGAAACTCACTGTCAGAGCACTCCCCTC
AAAAAACACCAA

Sequence 2576

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGCCTCCTCTATTCCTCCCA
ATCTCAAGGTTACTCTTAAATACTAGTAAATGCAAAAAGAACTTGTAAGTGGCAAGGCA
TGGCCTATCAAAAGTCAGCCCAAGGGCAGTTTTTCAGCCCTGCCTCACCTGGGTCTAGTTC
AGCTGACGGATGAGCTGATTGATGCGTTACCCCCGATAGCCAGGTGTGCCCATCTCCTTG
AGGAAGCCCCTCTATTTTTGGTAGCATGACGGGCCACTGAGAGGTGGAAGGGGCACAAG
AACCATGAGATCCTGGAATGCTTCCCTGGGAAGGCAATTTTCATGAATGAGGTCTTCC
AAGCAAATGACGCCAAACTTCCCAGGTGCTCCTCAATCACTGTACCTGCCCGGGCGGC

Sequence 2577

AGGTACAGAGTCTTTTGCTTCCCTCCACCCCTAGGGGGGAAAACTGCTTTGTGCTTTGGG
AAGTTGTCTCTGAAACCCGGGGACAGAGGACGCAGGACAGACTAGGAGGGAGCCGGGAGC
TGCCCGGCGGGTCATGGGAATAACGCCGCCGCATCGCCCGGTGGCATCGTTTATGGTCG
GAACTACGACGGTATCTGATCGTCTTCAACCTCCGACTTTCGTTCTTGATTAATGAAAA
CATTCTTGGCAAATGCTTTCGCTCTGGTCCCCTCTTGCCGCCGGTCCAAGGAATTTACC
TTCTAGCGGGCGCAATACGAAATGCCCCCGGCCGCTCTAGAACTAGTGGGATCCCCCG
GGGCTGCAGGGAAATTTTCGATATTCAAAGCCTTATTCGAATACCCGTCGACCTCGAGG
G

Sequence 2578

CCGCGGTGGCGGCCGCGCGGGCAGGTACCCCGAGTCCAGCGGAGACAAAGGAGTTAGAAA
GAGACAGAATAAGAGTTTAAAGGCAGGTCCAGGGGACCGGAGCGTTGGAGGCTTGCTCA
TGGCCCAGAGCTCTTTGGCTCCGCCCAATTTATTGATTTACAAGCTCTTTGTTCTTAGGG
CAGATGGGAGGGGTAGGAAGGGATGAGGAAAAGGATTAATCAGTGAAGGAGAACTCGTGA
GTCATTCAATAATATGTATAGTAGTGGTGGTTTCTGTGAATTTCTTGAGTAAAGGCGTG
TGTCTAAACTACTCAAGATCTTAACTTATCGGNATTGAAATGGATGGG

Sequence 2579

AGGTACGCGGGATAGTGAAACCCCGTCTTTACTAATTTTTGTATGTTTGGTAGAGACAG
GGTTTCACCGTGTTGGCCAATATGGTCTCGATCTCCTGGCTCATGCCTGTGGNCCCAGCA
CTGTGGGAGGCTGANGCAGGAGGATCATNTTGAGGCCAAAGAGTTCGGGATCAGCCTGGG
CAACATAGTGATACCCTATCTCTTAAAAAAGAAGAAGTTTTTAAATTTGAAATAATAANA
GGTACCTTGCCCGGGCCGGCCGCTCTAGAACTAGTGGGATCNCNCCCGGGCTGCAAGG
GAATTTGATATCAAGCCTTATCGGATACCGTCCGACCTTCGGAGGG

Sequence 2580

CCGCGGTGGCGGCCGCGGGCAGGTACGCGGGATGATTGAATTTTGTTCGCCTAAAATAGT
AATCTATAAGATATAAACTCGAGTTAGGGTTTACATTTTTTACTTATGAACACAGGGCAC
TAGGGCCACTTCAGTCTAATTTCTGCTTTTTAATTACTTTAACACTCCACAGGAGGAGG
ACTGGTTTTCTCTGTGACTTCCTAATGTATGGCAAGCAGGACTTCTTCTAATCCACTAC

TABLE 1

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CCTCTTCCCCTAGCTTAACTAAGGCTTGCAGTAAAATTATAAATTTCCACTTTCTTTCCCT
ACATTCTCAAATGTAGGAAATGAGGACAAACAACCTTCTCTCTCCAATTTACAACACTAT
CAACTATTTGTCCTTTATTGTGCATTTTCAGACACAGGTGTTTTAATTGNTAATCATGTTT
TTAACTGCAGTGGATGGCAGGTTTT

Sequence 2581

CCGGGCAGGTACTTTTTTTTTTTTTGAGATGGAATTTTGCTCTTTTGCCAGTCTGGAG
TGCAGTGGCATGNNCTCAGCTCACTGCAACCTCCACCCACTGGGTTCAAGCGATTCTTNT
GCCTTAGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCCGTGCCTGGCCCTGTCT
CTCTTAAGAGTAGGTTCAATTGTCTGTCTTAGAGTCACTTCTATTGCAACTCATTTTCTTT
TTCCAGGGCACAGATCGACCAAGCTGCCGGTTCCTATTCTGCAGGGACAGGGACTATTT
CTAGCATACCTGCTTTCGTCCACCCAGGCAGGGGTTTGGGGGTGGGTCTNTTCTGTGCCT
GCAGTCCCCCATTTTGACACTTTGGGTTCNCACCCATTTTTTGGGANAATNATTTGTTT
GGGAAATGAAGGCTTCCATTGGG

Sequence 2582

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCTTTCTTTTTTTTTTTTTTT
TTTGAGATGGAGTCTCGCTCTATCGCCAGGCTGGAGTGCAGNGGCGCGATCTTGCGCA
CTGCAAGCTCTACCTCCTGGGTTACACCATTTCTCCTGCCTCAGCCTCCCAAGTAGCTGG
GACTACAGGCGCCTGCCACCATGCCTGGCTAATTTTTAGTAGAGACGGGGTTTCGCAGTG
TTAGCCAGGAAGGTCTCAATCTCCTGACCTCCTGATCCGCCCGCCTCGGCCTCCCAAAGT
GCTGGGATTACAGGCGTGAGCCACCGCGCCAGTTGTGCATTTCTGGTTTCTAAGAATCA
AACCATTGGGCTGTTTTAGAAAGTACTTCCCATGTTATAAAGCTGAGGAAGCTTTTTT
TTTTTTTTTTTTGAGACAGAGTCTTTGTNCNCCAAGCTTGGAGTGCANTGGTGCAATCTT
AGCTCCCGGGGTTCAAGCAATTTTCTGCCTTAAGNCTTCTGAGTAAGCTAAAAATACAG
GNGGCCNCCACCCCGNTNGGCTTATTTTT

Sequence 2583

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCCAGGTACGCGGGGGCACTCAG
GGAGCTCAGATTTTTGAGACAGTNGCTGGCCGATGCTCCCAGNTGAATAAAGCCCTTCTT
CTACNAAAAAGAAANNGAAAAAGAAACAGGATATCTGAAATTAAGACNGCNGATGGA
GNNGTTTCTNNAATGACAGGGNCCAAGGNGNGACCACGGGACCAAGNGGCTGAACTGGN
ATGAAGTTAAGAAGCAGNAANAAACATCCNATAATATGGTGATCAGNTCAACAGAATGAC
ATATTNACCATGTNCCNAGGAGGNGATGACTGAGATTTCAAAT

Sequence 2584

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCTGGATAGCCTCCAGGCC
AGAAAGAGAGAGTAAGCGCGAGCACAGCTAAGGCCACGGAGCGAGACATCTNGGCCCGAA
TGCTGTCTAGCTTCAGGAATGCCCCCGCGTACTTTTTT

Sequence 2585

CGGCTGCGGCGAGCCGGTATCAGCCTNACTCAAAGGGCGGGTAATACCGGGTTATCCACA
AGAATCAGGGGAATAACCGCAAGGAAAAGAAACATGTGGAGCCNAAAAGGCCAGCAAAAG
GCCAGGGAAACCCGTTNAAAAGGCCCGCGGTTGCTTGGGCGTTTTTCCAATAGGGCTT
NCGNCCCC

Sequence 2586

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGGATT
TCCGCTGAGTGACCTTACAAGTCTTCTTGATCCTGAACTGGGTTAGGTGCCGCTGTTG
CTGCTCGTGTTGGATCTAGAACCGTAGCCAGACATGGGACTGGAGGACGAGCAAAAGATG
CTTACCGAATCCCGGAGATCCTGAGGAGGAGGAAGAGGAAGAGGAGGAATTAGTGGATCC
CCTAACACAGTGAGAGAGCAATGCGAGCAGTTGGAGAAATGTGTAA

Sequence 2587

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTT
TTTTTTNGGTATGAAAACCTTAGGGACTAAAATTAATATAAAAATTGGCATAATGTTGGA
TTGAATCTACATTTTGGCAGAAGTTAAACATTCCACATAATGTCAAAATTATACATCAT
GCAGTTCTGTTTTTTGTTTGTATTTGTTTTGTTTTGAGTCTGGCTCTGTACCC

TABLE 1

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AGGCTGGAGTGCAGTGGCGTGATCTGCAACCTCTGCCCCCGGGTTCAAGCGATTCTCCT
GCCTNAGCCTCCCGAGTAGCTGAGATTACAGGTGCGCGCCACCACACTTGGCTAATTTTT
GTATTATTAGTAGAGACGGGGTTTCGGCATGTTGGCTAGGCCGGTCTCTCCTGACCTCAG
GGGGATCAGCCC

Sequence 2588

TAGGGCGAATTGGAGCTCCCCGCGGNGGCGGNCGNNGNACANAATAANGCCTGTCACATA
TTAAGTNTGTAATAACGCATTTATTACTTATCAGGGTATGATTTATGAATTGNGGAA
CCTGNGATTATGGGAGAGTCTGGCTTCAATCAAGGGCTGAAATTCATTTCCACTGACAT
CTTTTNCCTTCCCATCCCCGATTCTGCTGCAACAGGGTAACAAGAAGGGGCCCTTAG
GCCGTTGGGACTTTGATACCCAGNAAGAATACAGCGAGTATATGAACAACAAAGAAGCTT
TNCCCAANGNTGCATTNCAGTATGGTNTCAAATGTCTGAAGGGCGGAAAACCA

Sequence 2589

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAGTGTGCGGAACTCA
AATCGGCATTTAGATAGATCCAGTGGTTTAAACGGCACGTTTTTGCCTATAAAAAAGTG
CAAAAAAGATGTGGTTTACAAGTTAAAGCTACAGAATCCCTTTTTGCTGTAATTGCACCA
GTTTTAAAGCCTCTGGACAGAGCAGTATTTTCTTTTAAACCTTGTTTTTCTTAAAGCTT
ACAGTGTGTTGGCTAATTCTCCTCCCCTTTTTACAAGACGGGGGCGGAGGGTGGACACTG
GTGGCAGGTTAAGGGATACTGTCACTTTAAGAAGCCTGCAGATTGAAGTGTAACATGGA
GAAATTAGGGGCTGATTTTTTAAACTGTGTGAGATTTAACCAGCCGCCCTGTTATAAAA
TCAGGGAAATCCAAACAGCGATTTACACCCGATTACACCCCTTTATATATTTTTTACA
AAAATACACTGGGGAAAATAATCNAACCGNTTTCATCTCTCTTGGCTTTTTTGGTTTTT
AA

Sequence 2590

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTCTTTTCTTTTCTT
TTTTTTTTTAATGTGAGACAGGATCTCATTCTGTTGCCTAGGCTGGAGTGCGNNGGCGCA
ATCTCGGCTCACTGCAACCTCTGCCTCCTGGGCTCAAGCAATTCTCCACCTCAGCCTCC
CAAATAGCTGGGATCACTGGCACAACCACCATGCCAGCTAATTTTGTATTTTTGTAG
AGACAGGGTTTACCATTGTTGCCTAGGCTGGTCTCAACCTCCTGGGCTCAAGCAATCCTC
CTGCCTCGGCCTCCCAAAGTGCTGGGATTACAGATGTGAGCCACCGCATCCAGCCCCACA
CCCTCATTTATACCAATTACCTGCCAGTAAGTGTGGACTTTTGTCTCCTCACCCTGCT
CTGATCTGGAAGGAGAGGGATTATGTTATAGCTTGTGAGCACAAGTCCCAAGTTCAATAT
TTCTGCGGCAAAAACTTCTTCAAAAAATAAATGTAC

Sequence 2591

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCCCTCTTCCCGCTGAAG
GGAAATTCACAGAAGCTATAGTTGATGCAGAGCCGAAATATCTGATAGTTGNGCGACCTG
CTCCACCTCCAAGTCAAAAGAAGTCATGTTCAAGGTAAACTCGTTCTCGCAAACCTCTGC
AGCTGGTGGTTGGCACTCTGACACCGAGCTCGGTCTTCTGTCATGGGGTTTCTCATCA
ACCCACACCATGACTGGACATTGCCAAGTCACTGTCCAATGACAGATTTTATACAATTC
GCTATCGAGAAAAGGATAAAGAAAAGAAGTGGATTTTTCAAATCTGTCCAGCCACTGAAA
CAATTGTGGAAAACCTAAAGCCCAACACAGTTTATGAATTTGGAGTGAAAGACAATGTGG
AAGGTGGAATTTGGAGTAAGATTTTCAATCACAAGACTGTTGTTGGAAGTAAAAAAGTAA
ATGGGAAAATCCA

Sequence 2592

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCGGCGAGGTACGCGGGGGCTG
ACTCCTTTTTCGGACTCAGTCTGCCTGCACCCATGTGATTAAAAAGCTTTATTGNTCACA
CAAAGCCTGTTTGGTTATCTCTTACACAGACATGCGTGACACTTGGTGCTGAAGACCCG
GGATGGGGGACTCCTTCGGGAGACTGGTCCCTGTCTCACCCTCACTCCATGAGGAGAT
CCACCTACAACCTCGGGTCTCAGTCCAACCAGCCTAAGGAACATNTNACCAATTTCAA
TCAGATCTTGGCTTAGTGGCTGAAGACTGATGCTGCCCAATTACCTCGGAAGCCTCCTGG
ACCATCACAGATACTTTGAGTAATCTCTTATAGTGGAAGGATGCAAAGTTGGAATAA

Sequence 2593

TABLE 1
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CCGGGCANGGTACCATATGTTTCAAAGTAGCTGTTTCATCCACAGATAAAGAGATCAAGAA
ACTCTCATATACATACTAGGAAATATTCTCCAGCCATCAAAATAATGAAGCAGTGTCA
TTTAGAGCAACACAGATGAACCGCGGAGACCTGCCTCCTACTCCACCATCACATGGAACC
CACCCTGCTTCTCCGAAGCTCGCTCTGACCACGCCGCTGCTGCTGCAGGGGGCCTCGCAG
GAAGTGCAGTCTCCCCCGCGTACCTN

Sequence 2594

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGGTATGTTTTGTCTTG
AAAAGAGGTTTTCTAGCTAGAAATTCGGGGCCCAGAAGGTCAAGGCTCCAGAGATCCCCT
TCTCATCATCCTTCAGTTGTCTGAGGAGACAGAGGATCACATGTGTCACAGTGAGTGCTG
ATTCCCCAGAATCTGCAGTCTTAAGCTCCCCTGCTGACGCACACAGCCAGTTCTCTGCTT
CATATTCATGTGACCCACTGTGAAGTGACAGGCAGCTGCCAATTCTGTCATATAAGAAGC
AGCTCTGCCCATGCACTTTGAAAGTTCCTGCACTTCTCCATAGACTGCTCCTTCATGGA
AATAACACATCATCACACTGTGGGTGCCTAAGCTAAGTTTGTTCAGTTTGATGATGC
CCAGCTCCTTTTCAACTCAGCCTTAATTGGCACTTTA

Sequence 2595

CGAATTGGAGCTCCCCGCGGTGGCGGCCCGCGGCGCAGGTACTTTTTTTTTTTTTTTGA
GACAGAGTCTAGCTCTGCGCCAGGCTGGAGTGCAGNGGCACCATCTCGGCTCACTGCAA
CCTCCACCTCCTGGGTTCAAGCAAGTCTCCTGCCTCAGCCTCCTGAGTATCTGGGATTAC
AGGCACATGCCACCACGCCCGGCTAATTTTTGTATTTTAGNGGAGACGGGGTTTCACTT
GTTGGTCAGGCTGGTCTCAATCTCCTGACCTCGGGATCCATCTGCCTGGTCTCCCAAAG
NGCTGGGATTACAAGGCGTGAGTCACCGTGCCCGCGGAGAGAAGCAACTCTTAAATACTTT
ATTCCTTCTCTAGGACCCTTTAAATGGTGAAATGGGCAGATGAGTAGCAATAAGTGGA
CCTTTGTTACTCTTCTGAGTTAGAAAAATTCTAATTTAAGTACCTCGGCCGNTCTAAAC
TAAGTGGATCCCCCGGGC

Sequence 2596

ATTGGACCTNCACCGCGGTGGCCCGCCCGGGNANNAACCATAAACCGTNGCAGNCTCAGC
ANATATTTTCCCTTCTTAAGTCAGTAACCTTTACCTTTTCACTTACAGGAAGCACTTTA
CGGCTTCTCTTTAGCATATGCAAATTGCCAGCATTACCACTCTTGGACTTTGGGGCCACT
GTTAAGTAAAGTAAGGGTTACTTGAACATAAGCACTGTAGGCCGGGGCATGGTGGCTCAC
GCCTGTAATCCCAGCACTTGNGGTAGGCCAAGGTGGGTAGATCACCCGAGCTCAGGGAGT
TCGAGGACCANCCTGGGCCAACATGGTGAAAACCCACCTTTACTAAAAATACAAAAA
TTAGCCAGGTTTTGTGGGCTGTATACCTGGNGATGCGCANCCTATTCAAGGAAGGGCT
ANAGGGCAGGGAGAAATCGCTTGGAACCTGGGGAGGCCGGNANGTTGCAGNTGAGCCCAA
GAATCCGTGGCCCACTGCACTCCAANCCTGGGGTGACAAGAAGCCGAGGACTCTGNNCTC
AAAAAAAAAAAAA

Sequence 2597

CCGGGCAGGTACTTCTTGATTTTCATCATACAAGACAAGCACAAAAGCACCACCCATGCCT
CTGAGAACATNGGACCATGCACCCTTGAAAAAGCTTTGCCTNCTTCATCACGAGCAATC
TTCGCCAGCAGTCAAGCCGTGCCTGTGTACAGATGGGGTTTTGCCATGTGGACCAGGCT
GGTCTCGAACTCCTGGCCTCAAGTGATGCACCTGCCTCGGCCTNCCGAAGTGCTGGGATT
ATAGGAGTGAGCCACCACGCCCGGCTACAGAGTTGGGTTTTAACAGAAGAGGACCTTGAA
TGCTGAAGCTTNACAGGGCGGCCAACTAATCGCTGATTTTTGCAAGACCACAGTGTA
AGGTGCGATGTCCACCTGAAGAAGGGGTGGGTGCAACTCTCTGGGTGCTGCACACCCAT
GACCAAGCCTGGGCATGCAGCACCCAGCTCCCATNCATTCACTGTTGCTTTGTGAG
GTCATTTTGAGAGGGCTTTCANAGCCTTTTAATGAGAA

Sequence 2598

AGGTACCTTTGACCCATCATCTTGGGAGGTGGGGAGGACCNCGAGGGNCCAGGCAGGGTG
TAGGGGAATGTATTAGNCCAANGAGATTTCCCTCTTCATCCGCAGCAGNGTATCTATTCT
ATACCTGGCTATGGGAGAAGACCCCTTGCTATGGGAGGGACCCCTTGCTATGGCCCTTTA
AGCCAGGCAGTGGGGATCTACCTGNGGCCCGGCTCCCTAAAGTCATTACATTGAATG
GGGGGATGAAGGNTCGGGACAGTGGCTCATAAGAGCCCGAGTATTGAGCCCTAANCTGTG

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Sequence 2599

Sequence 2600

Sequence 2601

Sequence 2602

Sequence 2603

CCGGGCAGGTACGCGGGGGGCATATCAGATACGAGGGCACCATGTAGCACAGCTGGACCC
CCTGGGGATTTTGGATGCTGATCTGGACTCCTCCGTGCCCGCTGACATTATCTCATCCAC
AGACAAACTTGGGTTCTATGGCCTGGGATGAGTCTGACCTCGACAAGGTCTTCCACTTGC
CCACCACCACTTTTCATCGGGGGACAGGAATCAGCACTTCCTCTGCGGGAGATCATCCGTC
GGCTGGAGATGGCNCTACTGCCAGCCATATTGGGGGTGGGAGTTCATGTTTCATCAATGGA
CCTGGAGCAAGTGGCCAGGTGGGATCCCGGCAGGAAGNTTGNAGACCCCTGGGATCATG
GCAGGTTCAAAATGGAGGGAGGAAACCGGACCCTGCCTGGGCCAGGCTTGCGCGGNTC
CACCCAANGTTTNGAAGGAAGTTTNTACAGCCGGAAAGTGGGNCCCTCTGANGAAGCCG
CTTTTGGTTCTAAGAAGGCTGGCGGAGGGNACCCTTCGGCCCCGCTTCTAAGAACTAGNTG

TABLE 1

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GGATCCCCCCCCGGGCTGGCAGGGAAATTCGGATATCNAAGCCTTATCGATACCCGNCCGA
ACCTCGANGGGGGG

Sequence 2604

CTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAGCGTGGAGGGTTTAGGCAGCGTGTCT
GATTCTTTGCGGGACGGCGAGCGCATTTGTGCTTTGCCCGCCGCGGCCTAGGAGGCCTTT
TGAGGCCGCGTAGTCGGTGTTTTTGAACCTACTCTACAGCTTCTGGCAGGCCGTGCGGCG
CCCTGACCCGGCCTCACCATGTTGGTGCTGTTTGAAACGTCTGTGGGTACGCCATCTTT
AAGGTTCTAAATGAGAAGAACTTCAAGAGGTTGATAGTTTATGGAAAGAATTTGAACT
CCAGAGAAAGCAAACAAATAGTAAAGCTAAACATTTTGAGAAATTTGAGGATACAGCA
GAAGCATTAGCAGCATTACAGCTCTGATGGAGGGCAAATCAATAAGCAGCTGAAAAAA
GTTCTGAAGAAAATAGTAAAAAGAGCCCATAAACCGCTGGCAGTAG

Sequence 2605

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTGGGTCTGAAGGGGTAC
TCAAGCGCTCTGCTATCTCTGCAGCTAAACGGGTGTCAGGTTTTAGCTGCTACTAAAG
ATAATGAGCATAAGCGTTCACCGACCAAGACTCCAGCCAGAAAGCCTGCACATGTGACCG
TGTCTGGGGGCACCCCAAAGGCGAGGCTGTGCTTGGGACACACAAATTAAGACCATCA
CGGGGAATTCTGCTGCTGTTATTACCCATTCAAGTTGACAACTGAGGCAACGCAGACTC
CAGTCTCCAATAAGAAACAGNGTTTGATCTTAAAGCAAGTTTGTCTCGTCCCCTCAACT
ATGAACCACACAAAGGAAAGCTAAAACCATGGGGGCAATCTAAAGAAAATAATTATCTAA
ATCAACATGTCAACAGAATTAACCTNTACAAGAAAACCTTACAAACAACCCCATCTTCGGG
ACAAAGGAAGAGCAACGGAAGAAACGCGAGCAAGAACGAAAGGAGAAAGAAAGCAAAGGT
TTTGGGAATGCGAAGGGGCC

Sequence 2606

CCGGGCAGGTACTTTTTTTTTTTTTTAAACATCTTTGTTTTTAAATAGAATGATAGAAC
TTTGCCAGTCTTTAAGATCTTGCTTAATTTAATGTATTAATCTGTTTGTGCAACATAA
TACCACCATTTAAAAATGTTAGGGGGATGAGTTGCAGTTTTTATAATAGATTTTTTTTTA
AAGTTTGGTATTGTAAACATTACACCTCTGTCCCTCAAAATTGATAATTACCGTTTAA
AGNGCAGNCATTTGNGGTNTAGAAATCTGTTTTGTTTTGCTTCCATTATTGAGTTCCTC
CTAAGGGAAAATTGGAGGAGAAGGGGACTGGAATATGAAAGCCCCAAATTCATATAAAA
AGTTTGCAGTTNTAAGGTTTGTATTAATAAATAGNATATTATTAANGAAAAAATTTTTT
TCACTTGATGTTTTGGTAG

Sequence 2607

ATATGGGCGAATGGACTCCCCGCGGTGGCGGCCGGGCAGGACTTTTTTTTTCTTTTTTT
TTTTTTGGAAACTTCTTTTCTTAGTTGTTGTATTCTTGAAGAGCCTGGGCCATGAAGA
GCTTGCCTAAGTTTTGGGCAGTGAACCTCCTTGGATGTTCTGGGCANGTAAGTGTATCT
TGGGCCTGCAATGAAGCCAGCCGAAGTCCATCCCTTGGGCAAGGGCCGGGCTTGTGGTG
GGTTTTTGGAAAGAAGTTTGGGACCAAGGGGTCTCCTCAAGGGGGAAGCCGGGGGGGG
GGTCTTCCCTCGGGCTCTNNGGCCGCTGCCATATTTCTTCTTGCCTTGGGCCGAACC
GCCTGCTTGAATACCTTGAATTGTTTTCTTGCCTTGCCTTGGTTGTTTTACCTAAGGANA
TTTCCCTCAATGGTAATGTGGTTTGGTAATTTTAAACCTAATAATCCTTTGGGCTCAATT
TTCAATCCCACCTCTTGCCAATCAAGCAAACCTGNTAANGATTCTTCCCCCAAAATN
GAATTTGGCTGGCTTGGGCAAAGGGCCTGAAGCAAATTCNATTGGTTTTAATCTTGCAA
ACAAGCCTGAACCTTCTTTTTTCAAGGGTCCCCACCATTAAAGGGAACATTTTNAATCA
AGGATGTGGAAATT

Sequence 2608

CGCGGTGGCGGCCGCCGGGCAGGTCAAACGATGTGTCCGTGATGACTGGTGGGGCTCATG
TAATCCCCACCTAAGAAAAGTAGAAAGTGCAACTTTATCTTTAGGTTAATAAGTGCTGA
GAGATGGAGGTTTTCTTCTCATTTTGATGGAGATGCCTAGAAAACCTCGCCTGACACT
CTTTGTCCAACGCAGGATAGAGAACATAGCAACAGAAAGGGTGAGGCAAAGGCATGGCT
GGTNAAGGCACTGCATGTTATTAAGGATGNGGGGCCCTGGTCTGTTGNTTCACATGT
TTTTCTNTTTTTATACAGAAATAGGAATCTACCAGACAGTAATAAATGCCACTTCTCAC

TABLE 1

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AGAAAGTCTGACAGGCTTCCACTGCCTCTGAGAGAACAACAACATGTTGGCTCCATAACA
TAAAGAAAAACAATGCTGGGTGCGGTGCGGTGGCTCGTGCCTATGATCCCAGCACTTTGG
GTGGCTGAGGCAGGAGGACTGCTTGAGCACANGAGTTTGAGACCAGCCTGGCCAACANGG
CGAAACCTTCTCTNCTACTAAAAATNCAAAAAAAAAAAAAATTAGCTG

Sequence 2609

TCACCGCGGTGGCGGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGTG
GAGACAAGGATCTTGCTCTGTCAACCAGACAGATGTGCAGTGGCATAATCATGGCTCACT
GCAGCCTCAACCTCTGGGGCTCAAGCAATCCTCCTGCCTCAGCCTCCCAAGTAGCTGGGA
CCACAGGTGTGCACCCCCACTCCTGGCTAATTTTTTTATTTTTTGTAAAGATGGGGNCTT
GCTATGTTNCCAAGGTTAGTCTNAACTCCTGGGGTCAAGCGATCCTCCTGCTTAACT
NCCAAAGCACTTGCGATTGAGNGTGAGCCACCAAGCCCAGCCCCAGCACCCTTTTAACT
TAGCTGCATAATCTTGGGTAACTACTAACCTTTCCAAAGTACCTCGGCCGnnnnnnnn
nn
nn
nn
NATTGCCCGCTTGGNGNAA
TCATGGCAAAAGCTGTTTCCGGGNGAAAATGNTTATCCCGTTACAATTNCCNAAANATAC
NAACCCGGGAGCNTAAAGNGTAAAGCCNGGGGGCCANTGGGGAGCTAACTACAATTAAT
GNGTTGGGCTACTGGCCNNTTCAATGGGGAAAACNGGNGCCACTTNNTANTGAATCGNC
ACCCCCGGGGGAGGGGGTGGTTTTGGCCTTTTCTTCTNGTAATANTNNTNGCCGGGGT
NG

Sequence 2610

GCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACAATGAGATGGATACAATTAGTNAAAC
CTTAAATTAATAAAGCTGTAGACAACAGAAGGNAACTGGAAATCCATTACAATTCAA
AAGAACTCACTAATAACAAAATTAATGTTTCATCACTTCATTTATAATCCATTNGGCCT
ACATNGCNTAACTAAANTGACACATGTCCCCGGGGGCTGCAGGCGTNGCNCCTTCTCG
CTCTGAGGNGCTNTCTTAACCGNNANACCCTGGAAGCGGGCAAGTCTTGTGTGTGCGG
GACCTTGACAGNCCCTGGCCCTCCGCCACCATGGGAATACCTNNGGCGCTTCTAGAACTA
GGTGGGATCCCCGGGCTGNAGGGAATNCNNTATCANGCTTATCGATNCCGTCGACCTTG
AGGGGGGGGCCCCG

Sequence 2611

CCGCGGTGGCGGCCGAGGTACCAAGTGTGGGAAGATGTTGAGCAACTGGAACCTCATGCGT
GGCAGGTAGGGATGTAAATGGCACAAAGACTTTGTAAATACTTTGGCAAATNNNAAA
AAGNAAACACATAGCTACCATACAACCCAGCCATCCCACTCCAGTATTTAACCCAGGTGA
AATGAAAACCTTATGTCCAAACAAAGACTTGTACTTTTCTATGATGACCCGGGCGGCTTC
TTTAACGNTTTTNGGTGCGAACCGCNGCCCATGTTGGCGGGTCTTGGTAAAAGACCCCG
CGTCCTGCCCGGGCGGCCGN

Sequence 2612

GGAGCTCCCCGCGGTGGCGGCCCGAGGTACANGAAAGTCTAGATGATCTTGTAGTGCCAG
AAAGTAAGAAAGTAATAAAAAGATGACAGGTCTGTCAATGATACAGAAGCCAATGTGA
CAAAGCTCTCAATAGTTAAATCTCGAATTTGAGTAGTAAAAGTGACACAGTTTTAGATTA
TAACCCAAAGAACTAAATAAATATCCATGAGCCCTATTGATATAAATGACAATTAAGGGT
TTTTGTTTTGGTTTTTTGGTTGCTTTGGTT

Sequence 2613

GAAACCTGTCGTGCCAGCTGCATTTANTGAATCGGCCAACGCGCGGGGAAGAGGCGGT
TTGCGTATTGGGGCGCTCTTCCGCTTTCCTCGCTCACTGACTCGCTTGGCTCGGGTCC
GTTCCG

Sequence 2614

GGAGGCGGCCCGCCGGGCAGGTACTTTGTTTCTTTTTTCTTTTTTCTTTTTTAAGACA
TGGTCTTGCTCTGTTGCCAGGCTGCAATGCAATGGTGCCACCTCGGCTCACTGCAANCC
TCGACCTCCTGGGTTCAAGCAATTTTCTGCCTCAGCTTCCAGGTAGCTGGGATTACAGG
CGCCCGCCACCAACACAGGCCACATCTATGTATTTAGAGACAGAGTCTTGCTCCACCTGG
GAGACAAAANCNGACCTCGTTTTAAAAAAAAAAAAAAAAAGGGAAAGGAAAGGAGGAATTT

[illegible]

TABLE 1

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GCAGGCTTAGGGAGCAGGAAAGCATACAGGTGTAGCAGCCTTTCCAGCTGATCCCCATGC
CCTGCTGCACCTGGAGGGCTGGAACAAGCTATTCTCATATTGGGGAAAAGGGCTGA

Sequence 2620

CTCCCGCGGTGGCGGCCGGGTACTTNGTTCCTTTCTTTNCTTTTTTTTTTTTTTTGAGA
CGGAATCTTGCTCTGTCACCCAGGCTGGAGTGCAGNGGCGCAATCTCGGCTCACTGTNNG
CTCCACNTCCCGGGTTCACGCCATTCTCCTGCCTCAGCCTCTNGAGTGGCTGGGACTACA
GGTGCCCAACCACCACGCCTGGCTACTTTTTTTGTATTTTTATTAGAGACGGGGTTTCAC
TGNGTTAGNCCCGGANAGANTNGATCNCCTGACCCTGGNACTGGCCCCCTTGCCCTCT
AACCCTTTTTGACCCCTAAGGGAANGTACTGGAATATTGTNTTGGGNNCCCATGCTTNTG
NGGCAAGGCTTAAGGGAGCAGGAAAAGCATACANGGTGTAGCANCCTTTCCAGCTGATCC
CCATGCCCTGCTGCACCTGGAGGGCTGGAACAAGCTATTCTCATATTGGGGAAAAG

Sequence 2621

NCCGCGGTGGCGGCCCGCGGGCNGGACCTGTTTTATCCCAGCTGAGAGGCAAGGAGAACC
TTTGTCTTTAAAAAATAAGCTGGTTTCAGCCAGGTGCGGTGGCTCACGCCTGTAATCCC
AGCTCTTTGGGAGGCCGAGGCGGGCGGATCACCTGAAGCCAGGAGTTCGAGACCAGCCTG
GACAACATGGTGAGACCTTGTCTTTATTAATAATGCAAAAATTTGGCCAGGCGCCGNGGC
TTTACCCCTTATTCCCAGCACTTTGGGAGTCCCANGCAGGTGGATCACAAGGTCAAGAA
ATTGAGACCCTTCTTGTTACACCAGGGAACCCCTTCTTTCCTAAAAATTTNTAAAAAC
CAAANTTGCTGGCATGGNNGGGGGCACCTGTAGTCCTAGCTACTTGGGAGCCTGAGGCANG
AGAATGGTGTGAACCCGGGAGGCGGAGCTTGCAGTGAGCCCGAGATCGCACCCTTGAC
TGCAGCCTGGGGGACAAGAGTGAGACTCCCTCTCNAACANAAACAAAACAAATTNNCC
NAGCGTGGTGGCAGGCCCTTGAGGCANGANGAATCACTTGAACCCCGGGG

Sequence 2622

GGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGANGACCTTAGAAAAAGGAG
GAAAGGAGGAGAGGCAGATAATTTGGATGAATTCCTCAAAGAATTTGAAAATCCAGAGGT
TCCTAGAGAGGACCAGCAACAGCAGCATCAGCAGCGTGATGTTATCGATGAGCCCATTAT
TGAAGAGCCAAGCCGCTCCAGGAGTCAGTGATGGAGGCCAGCAGAACAAACATAGATGA
GTCAAGCTTTGCCTCCCCCCCCCTTAGGGAGTTAAGCCAAAAGCTGGACAAATTGCCCA
GAGCCTGTGATGCCTTCTTAGCAGGGAGAGCAGATGGAAATCCACCTTGATAGAGGCTTCC
CCAGAAGAACCTCCAAATTCTGTAGCTNATACCAGAAGTTAGAACTTCTGCCAGAAAAA
AAAAAAAAAAAAAGTACCTGCCCC

Sequence 2623

TGGAGCTCNCCGCGGTGGCGGCCGAGGTACTTCNTTTTTTTTTTTTTTTTTTTCTTATTT
AGGGGAGAACTTTTACCTTTTCACTTAATGCATTCTCTTTGGTGTATCTGTNTTNGNG
CAACACTACTCTTGCTCTTNAGGGCCATTAANTAAAATAAGAGTTACTCAGGCTGGGTGC
AGTGGCTCATGCCTGTAATCCCAGCACTCTGGGAGGCCAAGGCGGGCGGATCATGAGGTC
AGGAGTCAAGGGCAANCCGGCNAATNGGGGAAACCCCAANTTTTTCTAAAAATACAAA
ATTCNTCCNGGCAATGGGGGGCNNATGCCTNAAATCCCAANANACCCTNAAAAGGCTNGG
GNCNGGGAAAANTNTTTNTAANCCAGAANCCCCGGGNGGNGGGGNGNTGNANATANGCC
CAATANNNCCCCNTTNNCNTNTNCCCCGGGGGAANNNTTGAANNCTTTNTNTNAAA
AAAAAACNAAAAAGGNTNTCNCTNTNCCCCCNGGGNAANNNGANACCTCTTTTTTT
CTCCNCCNNTTTCTNCTGGGGGGGGGGNNGAATNTTANTAAANAANCCNCCCCNNGGN
GANANAATNTNANTTTTTTTTACCCCCCNCGGGG

Sequence 2624

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACATACTGCTTTGATTGATAT
ATACAAAACACCACCTNCTTTTGATGGAACGGGGGCCAGAGCAGATCCTGNGATGAGG
ATTAATGTGCAATTCATGTAATNTATANCAGTNTTCAGGANGTGCTCACAGGATAAAC
CAATGAGGGAGNGGGTTCAGGGGCGNGGACAGGGAAGGGAACCTAACTGNGCAAGGGACNN
TTTNNGGGCANGGNNCGGNCTTAAGCCTANTCCCGTTGGGAGCTCTGGACATACATNAGG
CTTCAAAGNTNGGNNCAACTGGGNGCAAAAAACCTGGGCTGTTTATGCCTGCACCCCTT
TAGGCACCCTAAGCCCTACTTTGAAGTNTTTATTTAGCTCTCAATGTGTGAACCTATA

TABLE 1
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AGGAAATTAAACGTTTCATGAGTTAAG

Sequence 2625

TCCCCGCGGTGGCGGCCGAGGTACAGATAATTCAAATCTATTATCTAATGTATTAGGTTA
ATTTCTATTTGTTCTATACTTTTTTTTTTTTTTTGAGATGGAGTCTTGCTNNGTCGCCCA
GGCTGGAGTGCAGNNGTGCAATCTTGGCTCACTGCAAGCTCCGCCTCCTGGGTTTCATGCC
ATTCTCCTGCCTNNGCCTTCCAAGNAGCTGGGACTACAGGTGCCCCGCCCCGACACCTGGC
TNATTTTTAAAAAATTTTTAGTAGAGACAGGGTTTACCGGGTTAACCAGGATGGNCTC
NATCTTGACCTCGGGATCCCGCCNNTTGGGCCTCCAAAAGACTGGGGATTACAGGGCG
GTGAGCCACCGACCCGGCCTATTGACATTTTTAAGGGTCAAGATTTCTTTGTGTGTC
TAGTAATTCGTCTTTTATTGCAAAGATAATTTGCTTATTNGACTNAGAAAAATGATTTGT
GGGCATACAATATTGTATGTGGTACCTGCCCCGGCNGCCGCTCTAGAACTAGNG

Sequence 2626

TTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGATAATTCAAATCTATTATCTAATGTAT
TAGGTTAATTTCTATTTGTTCTATACTTTTTTTTTTTTTTTGAGATGGAGTCTTGCTCTG
TCGCCCAGGCTGGAGTGCAGTGGTGCAATCTTGGCTCACTGCAAGCTCCGCCTCCTGGGT
TCATGCCATTCTCCTGCCTNNGCCTTCCAAGTAGCTGGGACTACAGGTGCCCCGCCCCGAC
ACCTGGCTAATTTTTAAAAAANTTTTTNAGGAGAGACAGGGTTTCACCCGTGTTAGCC
AGGATGGNCTCGATCTCCTGACCTCGGGATCCCNCCCNTTGGGCCTCCCAAGGACTGGG
GATTACANGGCGGTGAGGCCACCGCACCCGGNCTATTGACATTTTTTAAGGNTTCAGATT
TTCTTTTGNNGTCTAGNAATTCGTCTTTTATTGGCAAAGATAATTTGCTTATTGACTT
AA

Sequence 2627

GCTCCCCGCGGTGGCGGCCGNGGTACAGATAATAACATCTGATATCCACATGGGGTCTGG
AGGTGCNAGCCACCTTCCTTTCATCCACGGTCTCACAGCAGCCCTGGAAAGAGGCTGCT
CTCTGTTGGAGGCTAAGGGCCAGTGTGGAAGGAGCTCTGGTGGAAAAGTGTGGTCTGCA
TGANGGGCTCCCATGAATNAGAGGATAGGGGTGGCNGGTACCTGCCCG

Sequence 2628

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGAGGTCCCGGCAGCAGCAGGA
AGAAGACGGACCCCGCATGAGGGCGGCGGCANGGAGCACCTTCATGTTGCGTTTCGGAGC
CCCGCGTACCCTATGGACAGTTGTGTCCCAAGGAAGGATGAGAATAGCTACTGAAGTCC
TAAAGAGCAAGCCTAACTCAAGCCATTGGCACACAGGCATTAGACAGAAAGCTGGAAGTT
GAAATGGTGGAGTCCAACCTGCCTGGACCAGCTTAATGGTCTGCTCCTGGTAACGTTTT
TATCCATGGATGACTTGCTTGGGTAAGGACATGAAGACAGTTCCTGTACATACCTTTTAA
GGTATGGAAGAGTCGGCTTGACTACACTGTGTGGAGCANGTTTTAAAGAAGC

Sequence 2629

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACCTCATCCCCTCAG
TGACTAAGAATTGCAGNATTTAAGAGGTAGCAGGAATGGGCTGAGAGTGGTGTGCTTT
CTCCACCAGAAGGGCACACTTTCATCTAATTTGGGGTATCACTGAGCTGAAGACAAAGAG
AAGGGGGAGAAAACCTANCAGACCACCATGTGCTATGGGAAGTGTGCACGATGCATCGGA
CATTCTCTGGTGGGGCTCGCCCTCCTGTGCATNGCGGCTAATATTTGCTTTACTTTCCC
AATGGGGAAACAAAGTATGCCTCCGAAAACCACTCAGCCGCTTCGTGTGGTTCTTTTCT
GGCATCGTAGGAGGTGGCCTGCTGATGCTCCTGCCAGCATTTGTCTTCATTGGGCTGGAA
CAGGATGACTGCTGTGGCTGCTGTGGCCATGAAAACGTGGGCAAACGATGTGCGATGCTT
TCTTCTGATTGGCTGCTCTCATTGGA

Sequence 2630

CCGCGGTGGCGGCCGCCGGGCAGGTACAGATAGCAAAGACTGGGACCACAGTGGAGGGAT
GCCTAATCCAGACAAGGGCAGGAATAGGCAGGGAAGGCTTCCTAGAGGAAGTGATTTCCA
AGCTGAAACTTGACAGATGGAACAGAAGNTAGCCAGAGATGGGAAAACATTTTTGGTCA
ATGGAAGANCAGGTGGTTGAGATAGAATCTGACACATGANAGCAAAAAAAGTCCANN
GNTGGGAGAATACNNGTGAGAATAAGACAATNTTAACTGGCNATATAAGTAAGNGATC
ATCACAAGGCTTTGTAGGACATAGTAGGGAGTTAAGACTTTTTATTCTGAGGGCAATGG

TABLE 1
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GGAATCACAAAGAGGGAGTTAGGCACTNTACACAACTTC

Sequence 2631

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGCAGGCCTCCTACACCT
ACCTCTCTCTGGGCTTTTATTTTCGACCCGNGATGATGTGGCT

Sequence 2632

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGTGGATATCATACGAAAGTGT
AGTTTCAAAGGAGATGGACAAACGATACCTACAGTTTGATATTAAGGCCTTTGGNGAAAA
TAATCCTGCCATTAAATGGTGTCTACTCCAGGCTGTGACAGAGCAGTAAGACTAACGAA
ACAAGGGTCAAATACATCTGGATCTGATACACTCAGCTTCCATTGCTGAGAGCTCCTGC
TGTTGATTGTGGAAAAGGACACCTCTTCTGCTGGGAGTGCCTTGGTGAAGCACATGAGCC
TTGTGACTGCCAAACATGGAAGAATTGGCTGCAAAAAATAACCGAAATGAAACCAG

Sequence 2633

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTTTTTTTTTTTTTTTTTTTTTGTGAGA
CGGAGTCTCGCCAGGCTGGAGTGCAGGGGCNCAATCTGGTCTCACTGGNNGCTNNGCCT
CCCGGGTTCGTGCCATTCTCTGCCTCANACTGTCGAGTAGCTGGGACTACAGGCACCCA
CCACCAAGCCCAGCTACTTGGGATCGCATGAGCCTGGGANNTTGGAGCNGCAGTGAGCCA
TGATCACTCCAGCCTGGGCAACAGANNGAGACTCTNTCACAAAAATTAACTTTACTTAAT
TACTTTTATTATTGNCATAATCGCTCCATTTTATTGTTGTTTGTGTTGTTGTTGNAACCAA
ATTGTAAAACCATTTTATNTTTTGTGCAAAACCAAAAAGTTTCTGAGACAGGTCTTAAT
TATTTAGAAGTTTATTT

Sequence 2634

TGGAGCTCNCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTGTGATAAG
GCTAATATTTTTTAAAGGAGGCACAGTGAATTTAAGACATTGACATTTATAGCCGTAGC
TCGACGCTTACTCTTGGAGGCCCAATTATCATCCCTGTCCATCTTGTAAGTGTCTATGTCT
TCGTCACTCTTAGACCCAGCTAACTGTGCCATCTCCTACTCCTTTCTGGCCTTCTTCG
AGTTCTTCCAACAGTCGGAAATTGCGAGGGACTTTTACTCCCGAGCCCGTGGTGGCTGCC
ATCTTGCGTGCCTGTTGCTTGAAGGCCGGCCCCCTTCTCCCCGCGTCTGCCCGGGCGGCC
GCTCTAGAACTA

Sequence 2635

CTCCCCGCGGTGGCGGCCGAGGTACTCTCCGCCTAAGTCCATAGAGAGGCTAACACCCCT
TCTAGTTTATTAGTCTTTGNTAAACCTATGAAATTTCTGAATNTAATGGCTANNTTATATG
CANNGTGGAGGNCACNCAAAAATGTTTCTCTCAACAGCTGTGATAAGTATAGGCTTATTT
TGATGTCTAAAGATCTGNTACCTGTATCTGNTTTCATCTTTCAACACAAATTCATGGGAA
NNTTAACTATGNNCCTGTGNTCNGGACAAGTGTGCATGAGAACATCATNCACTAAGTTTA
TCATNAAATGGGAAANGAAGCAGACNTTTTAAAAAGCACCCAAACCGGCCGCTCTAGAAC
TAGTGGA

Sequence 2636

AGGTACGCGGGGGCTGACTCTTCTCAGATTACAGCCAGTTGCACCCAAGTAAATAAA
CAGTCTTGTTGCTCACACAAAGCCTGTTGGTGGACTCTTTCATATGGACTCATGTGACA
TTTGGNGCCGAAGACCTGAGACAGGAGGACTCCTTTGGGAGACCGGCCCTGTCTCGCC
CTNTTTCATGAGATCCACCCATGACCTTGGGGTTCCTCANCCCAGCNCGAANGAACTTCT
TCACCAANTTTTAAATCGGGGACCGCAAAGCCAACAAGAATGAAGAAGTGNCAGGTATG
GTGGCTCATGCCTGTAATCCCAAGCACTTAGGGAGGCCGAGGAGGAAGAATTGCTTGAGG
CCNAGGAATCCCANACCAGCCTTGGACAACATGGCAAAATNCCANTNTTTTCAATNANA
TTAAAGNAAANAAATTAAGTTACCTGCCTNNGCGGGNCGTTCTAGNAACTAGTTGGANC
CCCCCGG

Sequence 2637

TTAGGGCGAATTGGACTCCACCGCGGTGGCGGCCGCGCCCGGGCAGGTACACGGTCAGTCCG
GGTCTAAGGGCGCAGGGTAGGGCATNCCACTGGGAGTTCAAAGGGGAAACNAAGATGTT
TCCCACTGCTGCTCAGACAGTGTGCTAAAATTCCTCACTCATTTTCAAGTCTTGTTTT
ACATAATGGCTTTTAAAGCAACTTTTGTTAATGCTNCTGATNCTTTAATNCAAACTATTA

TABLE 1
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ATGTNCCATTTTGGTGACATCTGGGTTTTTCATACANAAAAAAAAAAGTCAAAAAGGGGA
AACAAAAANATATTTACACATTTTATATATAAACTTAAAAACCTTGTACCTTN

Sequence 2638

CGAGGTAATATGGCAGTTTTGCCTCAGGTGCTGAACATTTCTCAGCCCTGGCTAAAAGGG
AGCAGCACAGGGAGAGAAACAGGATAGGAAAGCAGAATGGCGAGCAGCCTATGGCCCAGG
GCCTGTAATCCCTTCCCAAGACTAGCTGCTCAGGGTGGTGCAGGGACAGGACCAGACCCT
GCGCCTATTTCTGCCTTCTTCCCTATAGGGAACCTCTGTAGGCTGAGCCACTGTCCTGC
TCTTATGACATTATATCTTGTGCCTTTCTCCTCAGCAGTGAGCAGTGAGCTACTCCTGGC
CCAGGCCCTAGGGGAAATGGATCAGTCTTTGAGGTTTCTATTTGGGGAGGGGAGTACCTG
CCCG

Sequence 2639

CCGCNTGGCGGCCGAGGTAATGTTTTTTTTTTTTTTGAGACAAGGTCTCGCTCTGTCA
CCCAGGCTGGACTGCAGTGACATGATATCGGTCACTGCAACCTCTGCCTCCTGGGTTCAA
GGGTGATTCTCGTGCCTCAGCCTCTCAGGTAACCTGGGATTACAGGCATGCACCACCATGC
CTCGTATTTTTTTGCGTGTGTTTTAGTAGAGACGTGTTTCACTATGTTGTCCCGGGCT
GATCTCCAACCTCCTGTAAGTCAAGTGATCTGCCCGCCTCAGCCTCCCAAAGTGCTGGGAT
TATAGACATGAGCCACCACACCTGATGTCTGATGCTTATTTATTATGTGACCTTAGCGAA
GTGTGGTAGTCATTAAGTGCTGGTCTATCTCTATACCTTCCCAGGCAAGGTAGGATTGC
ACTNCCGCTCCACTTGTGATTAGGTGGAGCCATGTGACTACTTT

Sequence 2640

TGGGCTCCCCGCGGTGGCGGCCGAGGTAAGTAACTTTCCAAGGAGTCTTGGGTGTGTA
GCCAAGAGGAGCCATGAGCTATGGACTCCTCAAGCACGGGAAGAGGAGGTGTGTGCTGAG
AACAGAGAGGGCCCTGCCCTCTGTCCACTAGCGAGAATCCCTAGCTGCCCCAGCCAGTCT
TTCTCCCCGGCATTCAAACTTTGCAAGCGTTGGTCCAGGGCCCTTCTCCAGATCTGTT
NCAACTTTGNAGAGTGAAGGGCTTGAGCATACGGGGGAAGAGAGTCTGCATNANGTTAGG
GGGAAAACTTTTAAAGATACCCTCATTGTGTCAAAAGAAAGTGCCAATCTATTTTTGT
ATCAGCATTGGGAAGNGCACTTTCCCTGGGGCCGTGTGGGTGNGTGAATGTGCAAGTGT
CTGAGAGATACTGCATCAAGCCCTAGACCCTCAAGAGCCAGTCCCAGCCCTTTACAGAGC
ANTCCCTTATCCTGGGGCCATGGGTGAGGCTGACCTTCAA

Sequence 2641

CCCCGCGGTGGCGGCCGANGTACGCGGGGACTTCGGGCTTGTTGCTGGTGGCGTNNGA
GCCNAGCCCGGACTGGTCAGGATNGATCACGGACGTGCAACTCGCCATNTGNNGCCAACA
TGCTGGGCGTGTGCTCTTCTTGNTTGTNGATCTCTATCACTTACGTGGNCNGTCAAACA
ATTCCAAGAATGCANGAATGAAAGTTGGCGCTTTCTTCCGCCCCANGGTCCCAGGACATT
AGTCTGNGGCANGATNGAGGGGTNTNGAAGGGGCCTTTCACTTAACTTTATTCCTTTT
ACCCTTCACAACATACAAAAGGCAACTTACACCTGGGATTTTNCAAAACAACCTTTTAT
TTCCCTCAGANGNCTTTCCNTTAATCCCTATGGAACAAAGAANGCTNGNCCACTTGAANT
AGGGGCCCNAGTATAGGGGGCTTTGCTTTTCACTTCCNTC

Sequence 2642

GGACTCCACCGCGGTGGCGGCCGAGGTACGCGGGTATCTGTCATAAGCTCAACATCTGTAG
ATCAGAGGGCTACCAGAGGAACCAAGTTTTAGAAGATGAACAACACCTNTAGAAAAGAAA
TTGCCTGTNACGTTTTGNAAGATAAAGAAGCGGGGANAACCTCGAACGTTGCAACCTGN
AAACTGGGAGAAACGANGGCAAGCTCTNTTGAACAAGCAAGCTGCAAGGGAGCAAGGNN
CGCCTGNCCANCATGGAGCCGCGCNGNANGGAAAAGGAAGGAGCGTGAGCGCCAGG
AGCAAGAAGCGCAACAAGACAACCTTGAACCTNGGGGAAGCAACTGGGAAANGCATGCTGT
NAGCTANNAACCTGCANTATNAGAGGGAGGAGGGAGGAAAAGAAATTNGANAGGCGAA
GAGGCTNGCAAACTGGGAAACTTGAAGGCAACGACAACCTTNGAGTGGGAACCGGAANT
CGAAGGCAAGAACNTNCCTAAATCAAAGAAACATAGGAACAAGGAGGGACATAGTTTGNAC
C

Sequence 2643

CAATTGGACTCCCCGCGGTGGCGGCCGAGGTACCTTATGTAGCCCAAGAAATTCAAGAGG

TABLE 1
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AAATTGATGGGGCTCCTTCAGGAGCAGCGTGCAGATATGGACCAGTTCAGTGCCTCAATC
TCAGAGACCCCTGTGGACAGTCCGGGTGAGCTCTGAGGAGAGTGAGGAGATCCCACCGTT
CCACCCNNTCCACCCCTCCNAGCCCTACCTGAGAACGAAGACACTCAACCCGGAGTTTG
TACCTGCCCCGGGCTGGCNCGCTTCTAGAACTAGTTGGATCCCCCGGGCTGCAGGGAATT
CGATATCAAGGCTTATCCGATACCGTCCGACCTCGAG

Sequence 2644

AATTGGAGCTCCCCGCGGTGGCGGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGGGA
AACAGGGTCTTGCTATGTTGCCAGACTGATCTCAAACCTCCTGGCCTCAAGCAATCCTCC
TGGCTTAGCCTCTCAAAGTGCTAGGATTACAGGTATAAGCCACTGCACTAAGTCCAGTGA
ATCATTTTCCAGACAACATTTACTGAATATCCGACACTGCCTTCCACAGACGGGGGAGGT
TTCCCAAAGAGGCCGTGCTTTTTGAGAACTGGCAAGATAACCCCTGGGGTGGAGGGAAGG
TGGCCCGCAGCTGAGACCACCACTTACTGTCCCAATCCTCACCAGAGGTTGCTGACA
CTTTCCTNTTCCCATCCTCATCTACTTTCAAATTAGAACAGTAGAAAATGGGATGATT
AGGCTCCTTNNCATTTTTTAAAAACCCGTTGTTTCAAATTTTNTAGACNCCAAGTCTN
AAANGGGNGTAATCNCCTTNGTAAAAATTTAAATT

Sequence 2645

CCGGCAGGTACCAATCATATAATNTATATAACATTGCTATCAGACTAAAAACACATTCTT
AGCTAAAGATAACTTACCATTTAGAAGTCAAATGCAGGGAATCTTACTCCTGTTTCCAT
TTTNTGNCCCNCTTGCTTCACTCGNGTATGNCATGCTCTATCTTCTCCTATGCAGACT
TTANGNCNGTNGGCCATTAANTCTTGAAGAAATTTCTTCNNTCTTGCTGTCACNTACCA
NNTTANTTGGTCTGCGTGCAACAAGAAGGNGTATTATANNAAAAAGTTCTTGCTTAACC
ATTCANGATTAATAAANAAAAAATTCCTTTGTTTNAACATTTTGTATTTTTTGCACA
TACACCAAACTTTTTAATTGCCTTTTNCANAGNNCCTTTCCCTCCAAAAAATAAAAAAC
AAAAATCTTCAATCNACATAAAATCAAACACCTGTATTGATCCATGTTTCATGCTAAGCT
GGGNAA

Sequence 2646

ACTCCCCGCGGTGGCGGCGAGGTACAAGCGCTTTGAATATCATGGGCACCATGACTGTGA
CCCTACAGGTAGGATTGGATCACTCCATGAGAGTAGCCGGCAGGTTTCTACAATGGCCTG
GGAATGGAGTGATTATTTTATACATTTTCTGGCCTGAGAGAAAGCCAAGGTCCCTGCT
GTTACAGCAACCCCTGCCTGGGAGCTTGAATCTTGGTAAATCTGCCCGTTNGGATCTA
TTGGAGGTAGGCTCACCTTTTTNGTCTTTTGTGGGAAAAATTAAGAGAAATAATTNTCA
GACNTATCATCACCTCCAGTGGAACCTACAGANACCTGGACCCANCTGCACTATTTTAAT
GTAAAAATAACAATATGGCCAGGGTGCACTGGCTCACGCCTGTAATNCNATCACTTTGAG
CAGCCAAGGCGGGCGGATCACGAGGTGAGGAGATTAAGACCATCCTGGCCAATATGGGTG
AAACCCTGTNTTTACTAAAATACAAAAAATTAAGTGGGCATNGTNTTGCCTGCTGTNG
TCCCANCTACTTGGGANGGCTGNGACCAGGGGAATTGCTTTGAACCCCGNANGGCNTAGA
ATTGCANTGAGCCNNAATCANGCNTCTGACTTCTACCTNGGCGACAGGANTGGGACNTT
TNTTAAAAAA

Sequence 2647

AGGTACCCTATATTCTTCTTGATTTCTAGCCTTTTATTGGCTCTCAGATTGCCAGAGTTG
GGAATCAATAGTAAGCANCCATTCTGGTGAGGCGGAAGNGATNCTACCAGGGTGNGTTNT
CATGACAAGCANAATCACTGNGTTTTCTCTACTCTGTGGCATANGACTCTATGCCAT
AGAGNGACGTGTGAAAGGCTTGAGGCT

Sequence 2648

TCACCGCGGTGGCGGCCCGCCGGGCAGGTACTTATTTTCTTTTTTTTTTTGGGGGTGGG
GNCCTGGGNANTTTNTNAAGGGGCTTTTTAACNNGGGANGANANCCTGTGCCGGTTCAN
CCANGCCGGTNGTNAATTTTANCCTTTTTTCACTNGCTTTGGGTTTTTAAGGCTTTN
GTTTTCNANCNTTTTTCTTTNAAANCCTTCTTCAAGTNGANGCCATTCTCCNGGTTT
CTTCNAAATNTGGGCCTGGGTCCCTTNTCCCGGNTTTAAAAANAACCTTNCACAAAAACA
AAACANTTTTTTCCCTNG

Sequence 2649

TABLE 1
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CCGCGGTGGCGGCCGCCGCGGGTACGCGGGGGTCTCCAGAGTGAGTGTTCCGGAGAG
CACCGTGTTAGGGAAGGAGGAGGCTGCGGGCTAACCTGCCGGGAGGGAGGATGCTACTGC
CTGTTTCCTATTAGTGACAACCCACCTCCTAATCACGTCCTGCTTCAAACAAGGTAACAT
CACAGGACAGCCTCCGAAACAATAACTGTTTGAATATCCTTAATCTTCGGCAACTTCAAT
AACTCCCCAAAATATATGTAATCAGAGAATTAACTTTTACAACTTTTGGTTATTGTTTGC
TTGAACCATAAAGCAGAGCTCTTCTGGGATAAAAAAAAAAAAAAAAAAAAAAAAAAAGT
ACCT

Sequence 2650

AGGTACTTCACAATACAACCTCTTGCAGAAAGTATGAAGACACTCTGTGATGGTGGTGGCA
TCCACGAAGTAGCCGGCGCATAGGCAGCAAACAATGTGTTCAATCAAGTCTTTGATCTTC
ACTCGAACCTCCTCCTGACCCTCCTTTCCAGGGGAGACTACACAACGTCGGCGACACAA
CGCGCAGGCCCGCGGTACCTGCCCCG

Sequence 2651

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAACAAGCAATAATAAA
AGTCCTCTGCCGAAGACAGAATAGTGTAACCTTTCTTCCCCTGCCCTTACAGATTTTC
TAGAGAAGATAATTTGGGAATAAAAGGTATAAAAGGTTTTTGAGAAAAGAGAGATCAAAG
GACATTCAGAGTTCGGGAGGATATCTGGGAAGCAGACTTAGCTTAGATCCTAAAGGGTGT
AGAAGATCTGCATTGCTGGGGAGGAGTGTGGGAGTGGTAAACCAAGTCAAAGAATTCACAG
ATGTGCTGGGAGGAGGAGAAGGGGAGCAGAAGCAGGAAAACAGTCTGGCTGAAACACTGG
TTGTATTTCAAAGAGCAGTAGCAAATCAGGGTGGATAAATGTGTGGGCCTAAGCAGCTGG
TGAGCATTAAATGTGTAAGAATCAAATTGTATCCTTAGCAAACCTCTGAAGATTTCTGAG
TAAGATTTTTATGAGTGTTGGTAAATTTATATAGGATGCATATGGGTAGTACCTGCCCCG
GCGGCCCGCTCTAGATCTAGTGGATCCCCC

Sequence 2652

CCGCGGTGGCGGCCGAGGTACATAGTGTGCGGAACTCAAATCGGCATTTAGATAGATCCA
GTGGTTTAAACGGCACGTTTTTGCTTATAAAAAAGTGCAAAAAAGATGTGGTTTACAAG
TTAAAGCTACAGAATCCCTTTTTGCTGTAATTGCACCAAGTTTTAAAGCCTCTGGACAGAG
CAGTATTTGTTTTAAACTTTGTTTTCTTAAAGCTTACAGTGTGGCTAATTCTCCT
CCCCTTTTACAAGACGGGGGCCGAGGGTGGACACTGGTGGCAGGTTAAGGGATACTGT
CACTTTAAGAAGCCTGCAGATTGAAGTGTAACATGGAGAAATTAGGGGCTGATTTTTTA
AACTGTGTGAGATTAACCAGCCGCCCTGTTATAAATCAGGAAATNCAAACAGCGATT
TACACCGATTAACACCCCTTTATATATTTTTTACAAAATCACTGAGAAAATAATNAAC
GTTTTCATCTCTCTGGCTTTTTTTGGTTTTTAAAAAGTGTCAAAAAGTCTACATTTAAAT
NTTAAAAATTTAA

Sequence 2653

CACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACACCAA
ATGGATTACAAGCAGCATCCAGCAGAAGACAGACCCCCCAACCCTGCCACCAGGGCTCA
CACTCTACAAAACCTGAGGGCCTAGAAATCTGTAAATGCATCGCCAAGCACTGGGGCTG
ATTTGCAGTAATTCTCTAAGCAAGGCAAACATGATCTAGCTTTGAAGGCAGCATGAAGGC
AGCGGGTTGGTGAGAATAATCTCTCCTTAAGAGAAGAAGAAACCTGGGGCGGAAGGAGTT
TTCCCCGAAGTGGCTTCCGCGGTACAGAACACAGAACCTTATTTCTGTCAGTTATTTAATA
CATTGAAAATTTAGTGAAATGTTCAAAGAGAATAGATGTTTCCCAAAACAACAACCTTTAT
GTTAAAAATAGTCATTAAAGATCTGTTGTAATTAATA

Sequence 2654

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGTAAAGGTATAGT
AGTTGGCAGCAGAATGGACCCATTGAGGATAACTATAAAATTACNGAAAATATTTAAATG
CAACTTATTGCTATAGAAGCAAAGAGGACTAAAGGGCAAAATTCTAGAGAGTGGTAAATC
TCAGAAAAGCACAAGCATAAAATGCAGCTCTGGGGGCCCTTTCCACTTCTGGCTATAGGGA
AGAACCTGAATACTGAACTTGATTGAGGCAGAGGACCATAACCTGGGGGTCAGGGGAAGG
CATGGGGGGGACCAGAAACCAGAAGAACGATCAAGACTGCAATGAAAAAATGGATACAT
TAGGAGCTTCAAACACATATAATTTCTCAAGAAATTTCCAGATTCTCATGCTGCATAGGG

TABLE 1

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CAGGAGCCTGAAAAGCTAATTTGAGAAGATAATAAGTTGGATTTTTGNTTTGTTTTGCAT
TTTGCAAGTACCTGCCCCGTGCCGGC

Sequence 2655

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGGAGGTACCACTGAATCCAAGG
CTCTCTTGGGTAGCCTATGTGCCTCTTGGATGGTATGTGGAAGCCAAGGACTGTCTGAAC
GTGCTGAACAAGAGCAACGAGGGGAAAAGAATTACTCGTCCCACTGACGAGTTCTATGTAT
GTCCCTGGGAAGCTGCATGATGTGGAACACGTGCTCATCGATGTGGGAAGTGGGTACCT

Sequence 2656

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCCCCGGGCAGGTACTTGAACAGTAGGAGG
AGGTGGTTCTCATTCGTCTCCCGGGAGCGTCTCTCTCAGTCAGGCTGGCACCATGAC
CCAAGGAACCTCGGCGAGTGACGGATAAACACCAAGTCGGCCCCGCGACTAAGAGCTGCGCC
CCCGCGTACGCGGGTCACCAGGGTCAGTTTTCTTAAATGATGGTTTCCAAGTGGCCTAATA
CATTAGTAAGACTGGCTGATAACATGACCAGACAGACATAAAGACCCTGTTGGGAATGA
CATTGAAGTCTCAAAGTCAAGATTTCTTACACAAATCTATCAGCTGGAGAAAATGAAGGC
AGTGTGGTATATGTGTGCAAATAAGGACATTATGAAGCTTAAATATGGAATGTCTCTTGG
ACCCCCGATGTCATCTGNATTCTTTTTTCTTCTGTACCCT

Sequence 2657

CGAATTGGAGCTCNC CGCGGTGGCGGCCGCCGGGCAGGTACCATCTTGGCTCACTGCAA
CCTCAACCTCCTGGGTTCAAGCGATCCTGCTGCCCCAGCACCACCCCTCTCCAAGTAGC
TGGGACTACAGAAGTGCATCACCATGCCAGCTAGCTAACTTGAATTTTATAGTAGAGACA
GGGTTTACCAGGTTGCCAGGCTGGTCTTCTGAGCTCAAGCAATCCACCTNCCCTTGGCC
TTCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCACCCGGCCCATTTTATATATTATT
TTTGCATAGCCTTCATTGTCTTAGCAAAGTCAGAAGAAGACCANTAACATAATGTNATTT
AATTAACAACAACGNCAACAACAACAACAACCCNGGATGGGGGCAGTGGCTCAAG
CTANTAATGGCCGNCCTTATGAAAGNCCAAGGGGNGNGGATTGGTTGATTCCATTTTAAA
ACCAAAGTGAANCCCTNTTTTTTANAAAAAATAAACCGTTAAAAAAATCCTTGGTTTTTG
TTTAAANGNGCCGGTCCCCCCCCCAAGGAGAAAATTTTTNGGGGGGGGGGNGTTAAAAAA
AA

Sequence 2658

GGGCGAATCGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTNTTTTTTTTTTTTTTTTT
TTTTTTCTCCANAGGCTAGTTTTTCTTCAGTCCTTAANAACCTGCTCCTTATATGGGCT
TCGGTGGCAGTCATGGGGCAGCACCGCAGGTCTACAGTGGGGTGGAGGTGTTCCGGTCCTT
GCGGGGCTTCATGACCTTGATTTNTGGCGGTGGGGGGGCANACCCNCAGGTCTACAGTG
GGGGGAAGNGTTCGATCCTTGTGGGCTTAATGACCTTTGATTCTGACTACCGGGCTGT
GAATNGGCACAACCTTCACACAAGTATTGTGNTTTCNCATCNACCCTGGGAAAGAACCCCTG
CCCCGGGGGGGGCGGGGTTT

Sequence 2659

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTNTTTTTTT
TTTTTTTTATTT
TTTTTTTTTTTTTTTTTTTTNAAAAATTTTTTTTTTTTTNAAAAAAAAAANCCNCCNCCC
CCCNAAANNCCCCCNAAAAAANNNNNNTTNAAAAAATTTTNCGGGNNNTTCCC
CCCNAAANNNTTTNTNTNGGCNAAAAAANNNNNNTTTTTTTTNGGGGCCNCCNTAA
AAAAAANTTTAAAATTTTTTGGGGGGGNCNGGNANCCCCAATTTTANNTTNGGGGG
GTTNAAAAAANAANGGGGNAANNAAAAAAANGGNCNNNNNAATTNGNNTTNTNAAAAT
TNCNCCCNNAANNTTTTTCTNAANCCCCAAAANGGGANGGNCNNTNGGTTTTTTNAN
GGTAANGGGGGGCCAGGGGGGNTTTTCCAANTTTTNCCTGGCCCAAAAAAGGAAAAAT
TTTTTTTTTGTGGGGGGAGGGAGTTTTNAAAAA

Sequence 2660

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGAACAGGGATAAG
TTCTTGGATAAGGTGCCAACATACCTATAAAAGCTGATTTTTGAGTAAATTATTGATTCT
AACATATGTAATGGATTGTTGGTGTGATAATTTCTGATCTTAACTATAAGTGACTTTTTA

TABLE 1

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TTCTCCACCAGAAAAGATAAATGACTGAGAATGTAAGTCTGCGCTCTGATTAACACAATG
GAGAAACGGAAAACTATCTCTGTTAAAACTGATTCTGTCATTCTTCTGATATCAAAT
AAGAGGAAGGAAAATAAACTTTTTGTGTGTAGATAGAAAAACATACCTGAGGCCAGGTGC
AGTGGATCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGGCGGGCAGATCAGCTGAGG
TCAGGAGTTCGAGACCAGCCTGGCCAACATGGTGAATCACGTCTCTACTAAAAATACAA
AAATTATCTGGGTGTAGTGGTGCCTGTAATCCCAGNACTCGGGAGGCTGAGGCAG
GAGAATCACTTTAATTC

Sequence 2661

TCGGAGCTCNCCGCGGTGGCGGCCGCGGCAGGTAAGTCTGGCTGCAGACTGACCTTGCTCAG
GTCCGAGAAGGATGGGGCAGCCACTGGAGTGGATGCCATCTGCACCCACCGTCTTGACCC
CAAAAGCCCTGGAGTGGACAGGGAGCAGCTATACTGGGAGCTGAGCCAGCTGACCAATGG
CATCAAAGAGCTGGGCCCCCTACACCCTGGACAGGAACAGTCTCTATGTCAATGGTTTCAC
CCATCAGACCTCTGCGCCCAACACCAGCACTCCTGGGACCTCACAGTGGACCTTGGGACC
TCAGGGACTCCATCCTTCCTTCCCAAGCCCTACATTTGNTTGGCCCTTTTCTGGTGCCAT
ACACCCTTA

Sequence 2662

TTAGGGCGAATTGGAGCTCCCGCGGTGGCGGCCGAGGTACAGAGGGAGGGACATACAAT
ATTTAATAGGATATTTCTACAGAACAATAACTTATATTATGTCCTTGTAATAATCTGTAC
CTCTTTAAACATTTAACTGAAACATCCATTTTTTTTAGCTTTGCTAATCAAAATTGTT
TTAAGAATTAAGCTAGGTTGTAATAATGTCAGTACCTGCCCGGGCGGGCCCGGGGCA
GGTACATAGGCATCCTATTCACTGCACCCTGTCACACCCGGCACCCCCCGCCCCGCACAT
TATTTGAAAGACTGGGAATTTAATGGTTAGGGACAGTAAATCTACTTCTTTTCCA

Sequence 2663

AGTTCGGTGTAGGTGCTTTCGCTCCAAGCTGGGCTTGTGGTGCACNGAACCCCCCGTTTT
CAGCCCGACCCGGNTGCGCCTTATTCCGGTAACATTTCGTTCTTTGAGTCCCAACCC

Sequence 2664

AGGTAAGTCAACTGCCAGAACTTGGTATTGTAGCTGCTGCCCGCTGACTAGCAGCTGGAC
TGATTTTGAATAAAAATGAAAGCATTAAAGGGTTTCCCTACAAAACATTTTCTTTAAAA
TACTTTTGAATGCTATAANCAGTTGACTTTCACCCCTGGAGAGCATCACACTGTGTG
AGGTTCAAGTATTGTTGACCCTNCCCAGCCCTNCTGCTTCTTTAAGTTATCTGTGTGCG
TGCNCTTCTCTCAATCTTNTTTTGACCCGCTCATTNTTTTCTCTGACCCATGAAGAA
AAGGAAAACTTTACTGATTGATAAANTTTTTAAANAA

Sequence 2665

GGGCGAATTGGAGCTCCCGCGGTGGCGGCCGCGCCGGGCAGGTAATTTTTTTTTTTT
TTTTTGGTAGAAGTGGTGTCTCACTATATTGCCTTGGCTGGTATTGAATTCTTGGGCTC
AAGCAATCCTCCCTCTTGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCTCAC
CCAGCCCACTTATTCATCTTTTTGCCTGCAAGCTACACCACCAAAGCCCCAGGTCAAACA
TCTTTCTCCACAGACTGTGAGAAAAGAGCCTTCTCCTCCTAATTTGTAATGGCTTTCA
GCTCTATNTGTCTAGCTTCAATCCTGACATCTGCAGCTTACA

Sequence 2666

GGCGAATTGGAGCTCCCGCGGTGGCGGCCGAGGTACAATGAGGCTTGGCTCTGTGTGAT
GCACTCTAACCAGCCACACTTCAGCAGCGGCATCATTGGATTCAAGGAGAGTTTCTGC
AGCATGAAGGAGTAGGAAGAACACAGGGTGAGTTCACAGGAATCCCTACTTTTCCATGTG
ACCTTGTTTGGCCTGAAGTGATTTTCTTGACCTCTCTGGGCTGACTTTCCTCATGTGTA
AAGTGGAGGGTTTGAATATACAGAAAACAAATACCTTAAAGGATGCTCTGGCACAC
AGCAGGTATTTCCATATAATGATACCTCCCATTCCTTTTTATGTGAGCTATATCCCTGA
AACCAGGTTTGACTAAATTGAGACCACTTTCATAATATACACAATGACTGNTAGATAT
GAATTTTGGTGTGGTGAAGATGGGGAGTGAAAAAGTAGAAAAAGTCAAATCTCATTGAA
TAAAAAAGGG

Sequence 2667

NNGGCGGCCCGCCCGGGCAGGTAAGTCTTTCTTNTTTTTTTTTTTTGGAGGCAGAGTCT

TABLE 1
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NGCTCTGTTGCCAGGCTGGAGTGCAGCGGTGCGATCTTGGCTCACTGCAAGCTCCGCCT
CCCGGGTTCACGCCATTCTCCTGCCTNAGCCTCCCAAGGAGCTGGGACTACAGGCTCCCG
CCACCACGCCTGGCTAATTTTTTTGTATTTTGTAAAGACGGGTTTCATCGTGTAGCC
AGGATGGTCTCGATCTCCTGACCTNATGATCCGCGCTCTGTCTTCCCAAAGNGCTGGN
ATNACAGGGCCTGANCCATTGTGCCAGCCAAANTGNCCTTTGNAAAGTTNGCGAAATC
AGATTTTGTTCCTCAATAGAACCAAAATTTTATGAGGGATGCTAGCATTTTCCAAGGC
ATANTAATTAGTTTACAACCTGAANAAATATTATGTTTTGTANTAGATAAATATTAAGGT
GNGCATTTTAA

Sequence 2668

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTTATTACAT
ATGATTTTTATTAGTTTCTGGAGGCAAATTTAATTTTATTTTAAAATCAAATCTATTT
TAAAAGAAATAGTTCTCAAAAAGACAACGATGACTGGGTGTGGTGGTGTGTGCCTGTAGT
TCAAGGCTGCTCGGGAGACAGAGGCAGGAGAACCCTTGAGGCCAGTTCAGTCTAGCCTG
GGTAACATAGCAGGACCCTGTCCCTAAAATAATAAAAAATTTAAAAACCACAATAATGTG
AGTTACAAAAAAGTGTAACCTATGAAAAGTCCGTATTTATATTGAC

Sequence 2669

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGCAGGGGT
GGGAGCATTTATGGTGATCAGATGTGCCTGGCAAGCCCCCTGTTACAGACATTGCTCACATT
CCAAATGTTTTCTGTAGAAATATTGCACAGGTCTGGGGACGCTCTACCTGTGCCCTGTGA
GTGTTAATAATGGTGGAGAAAGAGTGTAGCTGTGCCCTTGAGAGAGAAGGTGAGGGAAAG
AGTGCACCACTCAGCTGACCGTCAGCTAGGCTCTTCACTGAGTCCATGTCTCGCAGT
GCACAAATCACTGCCCATCANGCCTCAGTTTCTCATCTGGTAAATGGTGATAACATCAA
TCTGCCCCCCCCGCCAGGGTGCTGTTATGAGGGTCAAAAGTGGTAGTGGAGGGTAATACTG
GNTGAGTCCATTTGTGTGTGGGAGGAAGAAAGGCTTTACATTNACCTGGTACCTTGGGCC
GCTTTAAGAACTAGGTGGATNCCCCCGGGCTGCANGAAATTTNATATTAAGCTTATTG
ATTCCCGTCCACCTTNGAGGGGGGGG

Sequence 2670

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTTATTACATAT
GATTTTTATTAGTTTCTGGAGGCAAATTTAATTTTATTTTAAAATCAAATCTATTTTA
AAAGAAATAGTTCTCAAAAAGACAACCGATGACTGGGTGTGGTGGTGTGTGCCTGTAGTT
CAGGCTGCTCGGGAGACAGAGGCAGGAGAACCCTTGAGGCCAGTTCAGTCTAGCCTGGG
TAACATAGCAGGACCCTGTCCCTAAAATAATAAAAAATTTAAAAACCACAATAATGTGAG
TTACAAAAAAGTGGTAACCTATGAAAAAGGTCGGAATTTAATATTGACCTTTGGTAAGAG
CTCAATTANTTTTCAAGGAAAGGCAAGGGAGTATCACCATTCTGAGTAATACAATTTCAAC
TAATCTTTATTTCTTACTTGAAGTCAGTGCCTATCTACCACAAACATTCCTATATCAG
TGTGCAAATTAATTTNGAGACAATAGGCTTTTTACGACAATGAATTGGTACTTTNAA

Sequence 2671

ACGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTNNTTTTTTTTTTTTTTT
TTTTTTTTCATTTTTATAAGAATATATAAAAAATGATATAAANGGACATTTACGGTAGTG
GGGGAAGGCATATATNTACGTTAAAAGGCAGGACATTTTTAA

Sequence 2672

TACGAGCCATTTACAAAAATCGACCGCTTCAAGTCAGAGGGTGGCNGAAAACCCGACAG
GGACTATTAAAGAATACCAAGGNCGTTTCCCCCTGGGNAAGCTCCCCTCGTGCCGCTCT
TTCTNGTTTCCCGAACCCCTGTCCGCTTTANNCGGGAATACCCTGGTCCCNGCCTTTTTT
TTCCCTTTTC

Sequence 2673

CCGCGGTGGCGGCCGAGGTACGCGGGATGTGGTCTAATCAAAGCCATCTCAATTTGTAGA
TGAAGAAGGCAAGGACTAATGACAAGAAATGAATTGTTGGCCGGGCATGGTGGCTCACGC
CTGTAATACCAACACTTTGGGAGGCCAAGGCTGGTGGATCACCTGGGCTTGGGAGTTCGA
GACCAGCCTAACCAACATGGAGAAACCCCGCCTCTACAAAAAATAAATAAAAAATTAAG
CTGGGCATGATGGCGGGCGCGCCCCCTAATTCAGCTACTCCTGAGGCTGAGGCAGGAGA

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AGGTA CTCAAAGACGAATCATGAAAAAGAAAAAACTTTATTTCAAACAGGTT CAGTGAT

TABLE 1

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ATATGTGGGTGCTNCAGCAAAGGCTGGTTGTGGCAAAGTTTCATTTCAAACGTATGATG
TGGGCTGGGCAAGGTGGCTTCACGCCTGTAATCCCAGCACTTTGTGCCCCGCTACTCAGC
TGTGTTTCATGTGGNGGTCTGTGGAAAGAAAAGAAGACTCGTTTGGAAATGAAGCTGTCCC
TTTCCAAGCAAGTCTTCTGGTGGCTTTTCTTCTCTCAAAAATGGGATCCCGATAAAATAT
TTGAATAGGAGCNGAATTGGTAGAAATGTTCGTGCCTGTCACCCCAGAAAAGCCTTGCCT
GGTTTT

Sequence 2681

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTGGTTTAAT
TTCACAGTGAGGGAGTCGGTTGGTGATCTCTAAGAAATCCCCAAGCACCTGGTGTGGGA
AAGTCCCTCAAATAAAGAAGTGTTCTTTTCTTTTTTCTCTCTCTCTTTCTATTAT
TTATTTTTTGAGATGGAGTCTTGCTCTGTACCCAGACTGGAGTGCAGTGGCAGGATCTC
AGCTCACTGCAACCTCCACCTCCCGGGTTCAAGCGATTCTCCTGCCTCAGCTCCCGAAT
AGCTGGGATTACAGACACCCACCACCACGCCAGCTAATTTTTGTATTTTAGTAGAGAC
GGGGTTTCACTATGTTTTGTCAGGCTGGTCTCGAACTCCCAACCTCAGGTGATCCACCAC
TTAACCT

Sequence 2682

CCTCAGATTTTGGGCCTAGGAAGGTAGGTGATTTAACTCACTGAAAGCATGTACACCTT
GCTGTTGCTGCTTGCTGCCACTGCTGCTGTTTCATCTGTTCTGCTGCCGCTGGAATCGT
GGAGGTAAAGACTTCTGAACTGTTGAAATAGCCAGATAATACAGC

Sequence 2683

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTCTTTTTTCTTTTTCTTTTT
CTTTTTTTTTAATGTGAGACAGGATCTCATTCTGTTGCCTAGGCTGGAGTGCAGTGGCGC
AATCTCGGCTCACTGCAACCTCTGCCTCCTGGGCTCAAGCAATTCTCCACCTCAGCCTC
CCAAATAGCTGGGATCACTGGCACAAACCACCATGCCAGCTAATTTTGATTTTTTGTA
GAGACAGGGTTTACCATGTTGCCAGGCTGGTCTCAACCTCCTGGGCTCAAGCAATCCT
CCTGCCTCGGCCTCCAAAGTGCTGGGATTACAGATGTGAGCCACCGCATTACGCCCCACA
CCCTTATTTATACCAATTACCTGCCAGTAACTGNGGACTTTTGCTTCTCACCCTGTTT
TGATCGCTTTAAACTAAGTGGGATCCCCCGGGCTGCAGGAATTCGATATTCAAGCTT
ATTCGAATACCCGCCGCTTCGANGGGGGGGG

Sequence 2684

GACTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTC
TTTTCTTTCTTTCTTTTTTTCTTTTTTTGAGACGGAGTTTGCTCTTGTTGCCAG
GCTGGAGTGCAATGACATGATCTCAGCTCACCACAACGTCCACCTCCCAGGTTCAAGTGA
TTCTCCTGCCTCAGCCTTCCCAAGTAGCTGGGATTATAGGCATGTGCCACCAAGCCTGGC
TAATTTTCTATTTTAAGTAGAGATGGGGTTTTCTCCATGTGGGTCAGGCTGGTCTTNGA
ACTCCTGACCTCAGGTGATCCACCCACCTCGGGNCTCCCAAAAGTGCTGGGATTACAAGG
CCGTGGAGCCCACCGNACCCAGCCAAAGGCCAAAATNCTNAAGTCTTTGNTTTTTTTT
TCAAATTGAGGGGTNGTTATTTAACAACAAGCTTGGATCATTTGAGNCCAATTNTTTGG
TTCCCCGTTTCCCCACCCGCCAATTCNTTTTTTTTTTC

Sequence 2685

AGGTACAACATTTAGAGAACCTTAGCTGCCAGAAAACTCAGATTTTCTGCTTTACAAA
AGAATAAAAAATCATCGAATTTATTACCCTGGACTTTATTGGAATCAGTGAAGAATTTC
ATACCAAATACCAGGTTTACGAACNTTNCCTCTCTCTTTTNTTCAAGGTAAGGGGT
TTGGNCAAAAGGNTTGTTTNTTTTNGAAAANGCCGCCNGNTTGGNNCAGGTGGNNCC
TGTTAAGGGTTGGGCNNACGGGGGGTGGTTAAGGAAAAAATCAAATTTAAANCNTTTT
TATATTTTCCCGGGGGCTGNGTTTTAANCTTTAAACCCCTNGGTTTTNCCAAAGGGGN
AATCCCAAGGTTTTTTAAAAAAGGCCNNTTTTTTTTTTGGGGACCCTNGCCCNNGNC
GGGGCCCTTTTANAAAAAAGGGGGGGNTNCCCCCGGGGGTGGGANGGAANTTTGGAN
NTTTAAGGCTTTTTTGGGTANCCGGGAACCCTTNAGGGGGGGGGG

Sequence 2686

CCGCGGTGGCGGCCGAGGTACTCCAACCCAAGCAACAGAGCAAGACCCTGTCTCAAAACA

AAACAAAACAAAACAAACAAAAAAATGAGGTAGGCATGTTTTATTCCCATCTTACAGAT
GAGGAGACTGAGGCAATAATAATTCAATGGCTTATCTAAAGTCACAAAGCTAGTAAGGAG
CAAAATCCAGTTNTGTCTGCTTCCAGCCCACCTTGCCCACTTGCTTCTTTATT

[illegible]

AACACTACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCGGGCAGGTACAGTG
GAGAAAGAAGGGGGACCCACCAGGGCTATGGAGAGACAGTAGAGGCAGGACTGAACCGT
CAGCAAAGATTAAGGATGACCTGAGGCTGGCAACCACAAAACC

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCCGGGCAGGTACAGAGTCT
TTTGCTTCTCCACCCCTAGGGGAAAAAAGTCTTTGTGCTTTGGGAAGTTGTCTCTGA
AACC CGGGGACAGAGGACGCAGGACAGACTANGAGGGAGCCCGGGAGGATGGGCTGCANC
TGTGGAGGAGGGTTTTAAAGGAGAGAGGGTCGGAGAGCAAAAGGCCTNAANAAGCCANA
AGCAAGTTGAGAGAGGGTGAAAAAGTGAACCACCGGCTTGGGCTTGAACCGACACGCTT
TTCTTCCAATGGTTAAATAGCCACCTTTTAGAAAAAATTNACAAAGGNTCCCATTCC
NCNAAAAAAAAAAAAAAAAAGGAAAAA

TATACGACTACTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCCGGGCAGGACG
GGAAGGATTCTGCCAGGGTGATTCTGGGGGTCCGCTGGTATGTGGAGACCACCTCCGAG
GCCTTGTTGTCATGGGGTAACATCCCCTGTGGATCAAAGGAGAAAGCCAGGAGTCTACACC
AACGTCTNGAGATCACGAACTGGGATCCAAAAAACCAATTCAGGCCAAGTGACCCCTTNACA
TGTGACATTTTACCTTCCGACCTACCACCCCACTTGACTGGTTTCAGAACGTTTTNACC
TAAACCTTGGCTTTCCTTNTNTNNTGGCCAGNTTTTNACCTGATGCGTAAAAACGCA
ACCGACGTGAGGGGTCCTGANTNTCCCTGGGNTTTACCCCAACTCCATNCTTNGATTAA
GGGGG

CACTACTTAGGGCGAATTGGAGCTCCCGCGGTGGCGGCCGGGCACGGTACTTTTTTTT
TTTTTTTTTTGGTAGGAGATGAGGTCTCATTATATTGCCAGGCTGGTCTCAAATTCCT
GGCCTCAAGTAATCCTCTCGCCTAGGCCATAGTATTGGGATTACGGGCGTGAGCCACTG
CGCCCAGGCTTTACTAGTTTTCCATCTATCTTTAGGCCTNCTCANATTTCTGTGGGGCT
CCACTTCCACCAGTCACACCTTTAA

TACTT¹AGGCGCATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTGCACTCAA
 AAAATTATTTCTCAATTTGTTTGCTCATACTATTGATTTTTTTCTAGAATCTAAATAAT
 TGTGAATTA²ACTATGATAGCAGTATGCACAAACAGTAAGTGAATCAGACCTATTAATTC
 TGAGAGGAAGGAGGTGTCAGGATTTTCACAGAAGAAGAGCACTNAGGCCAGGCGCAGTGG
 CTTATGCCTGTAATNCCAGCACTTTGGGAGGCTGAGGCAGGCNGATNAAAGGNGGNCAGGN
 GTTTTANACCAGCCANCCAAACNTGGGGAAACCCCGNTTTTTANTAAANTCCAAATTT
 CCCCCCTGTANTCCAGTTACTNAGNGGGGNTTGGGNCAAAAAATTTTTTTACNCCCG
 GNGGGNGNGGGTTTTNCAGAGNNTATAAATCGCGCGNTTNGCTTTNAAATTTTNGGGNAA
 AAAAGAAACGAGTTCNCTTTTGA³AAAAAAAAAAAAAAAAAAAAANGG

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCCCGGGCAGGTACATAAGCCTAA

TABLE 1
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ACAATTTACCTANGTAAATATTGATGTCATAACCAAATATATGGCCCCGTTTCATAA
AGGTTACTATATTCTATAGAGAGTGAAGAGGTGGCCTTTCTATCCCAGCTTACCCTATTC
TTGTTATTGTTCAAATTCCTGAAGCTTGCACTAGCTGCCATCAGGTAAATGCTAT
TGGCTAGCAGAAGACTGCAGTTCTGTTAATATTAGAACCAGCAGGGGGAACCTGGGAACT
TGACATTAATAATCTAGAAACGGAATTTA

Sequence 2694

CCGCGGTGGCGGCCCGGGGAGGTACTTTTTTTTTTTTTTTTTTTGGGCGGGGGTCT
TTATTTGAGTTTAGGCATGATTGCAATGAAGAGGATCATGCTAATGAAGATGAAGCAGAC
GATAATGAGCGTGGCCCAGAGCAGCCAGTTGACTGACT

Sequence 2695

GAGCTCCCCGCGGTGGCGGCCGAGGTACACCTGTGGTCCCAGTTACTCCAGAGGCTGAAG
TGAGAGAGTCTCGTGAGCCCAGAAAGTTGAGGCTGCAGTAAGCTGAGCCATGATTGCACC
ACTGCACTGTAGCCTGTCTACAAACAAATAAACGAAAAAACAAAAAGACTTGTGAAAAGT
GCTGATTTTAATTAGGAAAAGATTAAACATTGGATAGTCATGGAATTGTTTACTGAACA
TTAGAAATTGGTTGCAAGGGTCTATGCTTCTGTAAAATAAA

Sequence 2696

ACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATATATGAATCACTA
AGAGTTCAGAAATTAAGCTCACTTTAAGAAAACCTAGCCAGGCACAGTGGCTCACGCCTG
TAATCCCAGCACTTTGGGAGGCCAAGGCGGGTGGATCACGACGTCAGGAGTCCAAGACCA
GCTTGACATGGTGAAACCCTGTCTCTACTAAAAATACAAAAATTAGCCGAGCGTGGTGAC
ACACGCCTGTAATCCCAGCTACTCAGGAGGCAAGGCAGGGGAATTGCTTGAACCAGGGAG
GCGGAGGTTTGAGTGAGCCCAGATCGCGCCATTGCACTCCAGCCTGGACAAGAGAGCGA
GGACTCTGACTTCCAAAAAAAAAAGGAAGAAAAAAAAAAGTTCCCTTGCCCGGGCCCGN
CGNTTCTAAAACTAGGNGGGNTNCCCCCGGGGCTTNNANGGAATTTNGATTATCAAAGC
TTTNTCGANNNCCCGTCGACCCTCGAGGGGGGGGC

Sequence 2697

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACTTTTTTT
TTTTTTTTTTTTTTTTTGGTANGGGACCGGGTTTTACCATGTTGGCCAGGATGATCTCGA
TCTCCTGACCTCATGANCTGCCTGCCTCGGCCTTCCAAAGTGCTGGGATTACAGGCATGA
GCCACTGNGCCAGGCCTTTGTCCATTTTTATTGAACTGCCTATTNCTTCTTACTGATT
TGTAGAAAGTCTTTATTCTAGTCTGGCAGGTATTTNTTTCAACACTTCCAAGATTATTN
ATTGGCTTTGGNAGCTAATGCTTCATTGANAAAAATGCTACCTGTATTATTGATGCCCAT
GTGA

Sequence 2698

CACTACTTAGGGCGATTGGAGCTCNCCGCGGTGGCGGCCGCCCCGGGCAGGTACAATTTCT
TTTTCTTTTTTTTTTTTTTTTTTTTTCTTTTTCTTTGAGACTGGGTCTCGCTTGTTCG
CCAGGCTGGAGTGGAGTGGCGTGATCTTGGCTTACTGCAGCCTTTGCCTCCCCGGCTCGA
GCAGTCCTGCCTCAGCCTCCGGAGTAGCTGGGACCACAGGTTTCATGCCACCATGGCCAGC
CNACTTTTGCATGTTTTGTANAGATGGGGTNNNACAGNGTTGCCAGGCTGGNCTTAAAC
TCCTGGGCTCAGGCGATCCACCTNTTTANCCTCCCAAAGTGNTGGGATACAATTGNGAG
CCACCACGTCCAGCTGGAAGGGTCAANAATTTTTACATTTTNGNAGCACAAATNTGGAT
TTTTACCCANCCCTTCCCTTCTTTTTCCCTTTTTANNNNCCCAATTTTAAATCGNN
NCNNTTTTNTTTTANAAAAAAAANCNTTTTTTNCCNAAAAAAA

Sequence 2699

CTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCCGGGCAGGTACTTTTTT
TTTTTTTTTTTTTTTTTGTTTTTTTTTTTTTTTTTTCCGACCAATATGGTTTATTNTG
CCCCAGCCAAGCTTNTTGGACCCTGGCTGGGGGAAAGGCACCCAGGCACCGGCAAGT
TCCAGTCATTGCAGATCCTCCAGGTNTAGNGTGACTGGAAGTANCCTGGGCACTGNTGC
TGGACCGTNGGATTCTCCTTCTTNTCCGCCGGCGGGTGGTCACCAGGACACCGCANAT
CAGGCATGTGATGAGTCCCAGGAGTCTGCCAAGCCGATGAGGATGACAGCCCAAAGGG
AAGGT

TABLE 1

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Sequence 2700

ACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTTCAGTGGATGCAAATGA
AATTTTATCTTTTAAAAGTAAGAGGAACTATGGCTGGGCGGGGTGGCTCACACCTGTAAT
CTCAGCACTTTGGGAGGCCAAGGTNGGGCGGATCACCTGAGGTCAGGAGTTCAAGACCAG
CCTGGCCAACACAGTGAAACCCTGCCTCTACTAAAAATACAAAATTAGCCAGGCGTGGT
GGCACGCTCCTGTAATCCCAGCTACTTGGGATGCTGAAGCAGGAGAATCTTTGAACCTG
GGAGGCAGAGGTTGCAGGGAGTTTGAGATTGTCGAGTATAGTGGATTGAGTGCTGTGGAG
CCGAGATTGCCAAGTGCAGTGGATCGAGTCCACTGCACTCCAGTCTGGGCAATAGAGCTA
AACTCAGTCTNAAAAAAAAAAAAAAAAAGTACCTGCCCCGGGCGGCCGCTCTAGAACTA
GGTGGATCCC

Sequence 2701

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTTGCTCACCAA
GCTCTTGAGGCCAAGCTTGATACGGCTGTTGTTTTTTCTACATCGTAGCCAGCAGCCGC
AAGCGCTTTCTTAAGCGCGGCCAGAGAAAACGCCGCTGCGCTCCTTAGAAGCTGCCACTG
CCTTGGTGATAAGCTCAGATACTGGGGGTCCGGATGCTTTGCGTTTCCAGCAGTTGCGC
CTGCCTTCTTCGCCTTTTTCTTCACAAGGTGTTTTTTCTGCGGGTGCAGGAATGGTAGGA
GCAAGTGGAGCAGTCTCCGACATGTTTTGTCTTCCAGAAAAGACAATAAGTAATCTCA
AACTGTCAGAACAGCATGTCCCCCGGTACCTGCCCCGGGCGGCCGCTCTAGAACTAGGTG
GATCCCCC

Sequence 2702

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAGGAAGGGGAGG
GCTTGGTGTTCCCTACGCGAAGGTCTGACTCAATGCTTATCCCTCTTCTCCTCTCTCT
GCAGACTGAAGAATTGAACCGGGAGGTGCTGCCCCACGAGCAGCTCCAGATGAGCAG
GTCCGAGGTTACTGACCTGCGGCGCACCCCTCAGGGTCTTGAGATTGAGCTGCGGTGACA
GCTGAGCATGAAAGCTGCCTTGGAAGACACACTGGCAGAAACGGAGGCGCGCTTTGGAGC
CCAGCTGGCGCATATCCAGGCGCTGATCAGCGGTATTGAAGCCCAGCTGGGCCGATGTGC
GAGCTGATAGTGAGCGGCAGAATCAGGAGTACCTGCCCCGGCGCTCTAGAACTAG

Sequence 2703

CCGCGGTGGCGGCCGAGGTACGCGGGTGTGAGGAGGTGGGGAGACCACCCACCCCATG
TCCACCATGACCCTCTTCCACGCTGACCTGTGCTCCCTCCCAANCATNTTCTCTGTT
CANANAGNTGGAGCTGAGGTGTCTCCATCTATGNCTCAACTTCATGGTGCACTGAGCTGT
AATTCTTCTCTTCCCTATTAAATTAGAACCTGAGTATAAATTTACTTTCTCAAATCTT
GCCATGAGAGGTTGATGAGTTAATTAAGGAGAAGATTCTTAAATTTGAGAGACAAAAT
AATGGAACACATCAAAAAAAAAATTAATAAAAAAGTA

Sequence 2704

TNAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA TTTTTTTTTTTTTTTTTT
TTTTTCTTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGCATCAAAAAGCT
TTATTTCCATTTGGNCCAAGGCTTGTTAGGGATAGTTAAAAAGCTNCCTNTTGGCTGGN
GGGAGAGGCTTAGGCANAANCCCTNTTACTTTGNANGGGGCCCT

Sequence 2705

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTGTTTGAGACAGAGTCTC
ACTCTGTCACTGAGGCTGGANTGCAGNNGCGCGATCTGGGCTCACTGCAACTTCCACCCC
TTCGNTNTAAGTGATTCTNCTGCCTCANCCTCCNAANTAGCTTGGATCACAGGCGCCCCG
CACCACACCCGGCTAATTTTTGTATTTTAGTAGAGACATGGNTTACCAAATTTTTAAA
GAAAAATAAAGGTGCATGATCAACAATCAAACCTNTAGGACCGTCCCCTANCAGGAGAGC
AGCAGCAGNAGCAGCACACANACCTGCCC

Sequence 2706

CACTACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTGAGCTNACCACTT
CTAAGAAACTCCAANAAAGGAANCATGTGTNTTNTATTCTGACTTAACTTNATTTGTCAT
AAGGTTTGGATTAATTTCAAGGGGAGTTGAAATANTGNNAGATGGAGAAAGTGAATG
AGNTTCTACCACTCTNACTAATCTCACTATTTGNATTGAGCCCCAAAATAACTATGAAAG

TABLE 1

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GAGACCGAAAATTTGNGACAAAGGATTGNGAAGAGCTNTCCA⁺NTTCATGATGTT

Sequence 2707

NCAC TACTT AAGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGGGGAGTGGGGG
TGAAGCGTGTCTCTACATAGGCAACACAGCCGCTAAGTCACAAAGTCAGTGGTCGGCC
GAGGTACTTTGGTAAGGAGATAGGGAAGGAATTAAGGCTATTACTCTGAAGAAAGTTGGG
GGGCCAGGGCTCCTATTTTTTGTCTGAGGAGATGGAAGATCAGGGCTTGTATTCAATAAG
AATGGGAGGGGCCAGGGGATGCCTGGCAAAAGCCTTGCACTGTGAGGTGCAGGTAGAGGC
TTTTATTCTGGTGAGAGGACATGGACTCTCTCTCCCCCTCAGGTAAGTGTGCCCTGTAC
CTGCCCCG

Sequence 2708

GAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCCTNAATTNTTTTNCCTTNNNNGAGACG
ACCTTTTTTGGANATTTTTTTATTTTTTGGCAAATTTGATCTTACCCTTTACCAGTCTA
TAATTTGGNTAAAAGCTGATTATGTCCTACAATGNCAAAGTCAGCTAACTGNCGTCTACT
TAAGACTTNTGGNCATTTCCAACCTATAGAGGAAGGGNGNCTCTAAATCTCTTCTCAG
AAGGCACCTCACTTNTCANACTTAAANNNCCACATCAAGTGTTCCATTAAAAGAAGATAN
GGCATTCTGAGTGCAAACAAATGGGGGGCTTNTTAACTA

Sequence 2709

[illegible]

Sequence 2710

CCGCGGTGGCGGCCGAGGTTACACGAGAANAGGAGACCCCCAACACGCTTCAAGCTTTGAGT
GGAGAGGACACAGCCTCTGCTGNGACAGGGAACANAGGGATGCGGAGACCCTGAAGATGC
TTTTGGACAGTGGTCTGAGGTTGGGACAGTGGCAGGAGATACCATTCACCCAGGATCTCC
AGGACAAGAGATCAGCCTGGCAGTTACATGTGTTTTTTTCAAACCTGGTTGCCAGGTTGG
CATGAGCGATGACATCAGGAGATTCCGACCTTTTCTTATTGGANGGGACCGGACTNTGTN
GGACCTGGGGAGTTNAGTTGGACAAANAAGAACCTTTTAAAAGGGGNTTTCNNTTTTGN
TTTTCCCCCCCCNCAAATTNTAAAAACCTTTTTNTTTNCCCCAAGGGGNCACAAAAAA
CCCGCCCCCCCCNNNTNTTTTTTNGGGGGANNNGGNNANTTTTTGGANAAAAATTT
TNTCCCCCCCCCCCCCCCC

Sequence 2711

CCGGGCAGGTACCTTATTACATATGATTTTTATTAGTTTCTGGAGGCAAANGGAATTTTT
ATTTTAAAATCAAATCTATTTTAAAAAGAAATAGTTNTCAAAAAGACAACNGATGACTGG
GTGNGGNGGTGNGTGCCTGTAGNTCAGGCTGCTCGGGAGACAGAGGCAGGAGAACCCTT
GAGGCCAGTTCACTCTAGCCTGGGTAACATAGCAGGACCCTGTCCCTAAAATAATAAAAA
AATTTAAAAACCACAATAATGTGAGTTACAAAAAAGTGTAAGTTATGAAAAGGTCCGT
AATTTTATTATTGGACCCTTTGTTAAGGAGCTCAANTAATTTTCAGGGAAGCAAGGGAGG
TATCACCCATTTCTTGAGTTNAATACCAATTTTCAAACCTAAATCTTTTAATTTT

Sequence 2712

CCGGGCGAGTACCCCTGACACTCCAGAGCTACTGAGAAATACTCCTTTGTCTTTCTGCA
CTTGTAGCCAGGCTGAGCTTTGTGAAAGAAGATTGTGTATGTGTGTACTTTCTTTTTT

Sequence 2713

CGGGCAGGTGCGCGGGTGGGTGACGCTGGTGAANTGGCCANGGAAGTGACATGTCTC
TNCCTGCTCTTCCAGGGTGATTTTTTGGCTCTTGGTCTTGTTCCTACTGGC
TTTCCATCCCCATGGGGCAGAAACAGTGGCTCCTGGGAGCAGAAAAGGAATTGAGGTGG
CAGGCAGAAGAGCCTGGATTGCTCACTGTTTGGGAACTTACTTNNAGANNTANANAAG

TABLE 1
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ATCCNCGAAAACCCAAAANCCTTCTTGACCAAACCATTTTTTGGGGTTTTTTTTTGNNGG
CCNAAAAATTTTTTTTTTTTAAAAAAGNNNGTTGNGGANAAAAACCCGGGGGGG
GGGGGGGGTTTTCTTTTTTTTTTNGTNGGGGGGGGCCCNAAAAAANGGGGTTNAAAAACN
CCCTTTTTTNCNCCNCCNNNNNNNNNNNTTTTTTTTTTNAAAAAAATTTTTCC
CCNCAAAAAANNANNNNNNTTTTTNTNNCNNNTTTTTTTTTTTNGGGGGGGGGGN
NNAAAAAATN

Sequence 2714

CCNGGCAGGTACNCGGGGGCGCGTGAGCAGCTGCAGCGGCAGAGGCAGCATCCAGCGGCG
GCGCCAGCAGTTCAGTCCGTTGCTTTACTTTTTGCTTCACCCGACANTTAGTCNTTTA
ATGCCCCGAAAGNAGGAAAAAGGTCTTCCAGGAGGAAATAACNAGTAGGGGGNCAAAAA
NGAATNGGGATTCCCAAAAAAGGTAACCTTAAAAANCAANNNGAANGCNCCCACC
AAAGGGAACGGGTTCTTGCCCAAGGAATTTGTTGAGNCGAAAAACCTTNNCTTTCCN
ACCCAAAAAACCCTTGTNNANCCCCCAANAAACCCAAAAAGGGAAAAANAACAT
TTTTGCTTTTAGGAAAAGGGAACCTNNTGTTNGGNNAACCCAAAAATTTATTTCTN
GNNGGGGTTTGGCCCTTAAAAAGGGGGGAAAAAGNAAAAAGGGGAGGGGNAAAAAA
AAGNNCCAAGGGGNAAAAAGGCCTTTTNGNAAAAANGG

Sequence 2715

CAGTAAATGAACTAATCTACAAGCGTGGTTATGGCAAAATCAATAAGAAGCGAATTGCTT
TGACAGATAACGCTTTGATTGCTCGATCTCTTGGTAAATACCGGCAATCCCTCCNGCAT
TGGGAGGGAATTTTGATTTCATGGAGGAATTCTAANTAACCTGGTTTGGGNAAA
AAAAACCGNCCTTTTTCAAAAAAGGNANGGNGCCAAAAAATTAACCTTTTTCCCTT
NGGTNGGGGGCCCCCCTTTTTCAAAAAATTTTGGGTTCCTTTNCTTTCCCAACC
CGNAAAGGGGGTTNGGGGGAAAAATTGGGAAAAGGGAAAAAAGGGGAACCCCA
NACCCCCCAATTTTTTTTTTGGGTTTAAAGGAAAAAAGGGGGGTTTGGGGNG
AAAGGAAANTTGNCCCTTGGGGCCAAACCAAGGGGGGGAGGGGGGAACCCCAANGNA
ATTCAAAAACCCAAAGGGGGGCCCTTTTAAATTTTAANGGAAAAAAGGGAAAAATTN
NGGAAAAACCTTTAAAAAGGGGGNGGNGGTTCTTTAACCCCCATTGGGAAANTTAA
TTTTTTTT

Sequence 2716

ACTTTTTTTTTTTTTTTTGTGCAAAAACTCCTTTATTACCATCTCCCTATTACATT
TCTATTCTAGGGTAGTGTTAATCTCAGGGTCTTATTTCTTTAAGCACNGCNAAAAAGGG
CCTTTGGTAGGAAAGTTAGGTGGTAAAGGTTTTCAATCCTTTNATTTTTNTAATCAA
ANGGGGAATTGAAAAAATTCANAAAGGNCCATAGGGGNAGGCCNTNGTTGGGACCTTA
GGGGANCAAATTAACCAGGTTTAGGGTCCTTAGGGGGGCAATAAACTTTCCCAAAAC
CAACCATTTTTAAGGGGGGAAAAAAGGCCCCCCAAGTTTTTGGGGAACCCACCNA
GGAGGCCTAATTAGGTTTGGGGCCTTNCAAAACCCCTTTTAAATTTCCAAATTGGAA
NCCAAATTTCCGGGTNGGTTTTTTCNAAACCAATTCCAANTTTTTCCAAAAAAGGT
TTTTTTTTTGGGTNGGGGNAAAAAGGTTTCCTTTCTTTGGTTAAAGGNTTGGGAA
NCCCCAANCCCCCTTGGGAATTNAACCTTNGGCCCTTGGGGGGGGGAAGGGTTT
TTAATTTTTTTTCCC

Sequence 2717

AGGTACTTTTTTTTTTTTTTCTTTTTTTTTTGGTGGGGGTGTATAGGTCTGGGGAGNGC
CTTTCAGGTGCTGCTCCATAGACATGTGTGTGCCCTGTATAGAAACCGCCCCCATTGTN
TAGAAAAACNCCAGACNCTTNTCCAAANAGNCNNGNTTCTTNACCCATGTAAANNGG
AAGGNTGNGCGTAATTAGGAAAAACCAAGGCTCAACCANANAGGGCCAAACCAATTAAT
TAAAAATTCCGGTCTTGAAGACCCTTTGNCCAAATGNATTACCTTGTCNCCCAATTT
ANAGGGGAAGGCCCTATNTANNTTNTCTCTTTGTCTGGTGGGGCCCCCCCCAACTTT
CAAGGTTTGCCTTNGGNCTNCTTACCTTAAANTNAGNNAACCAANGGCGGNCCAATNA
AAAAANGGCCAAAGGGGGNCTTGGTTNAAAAAATTAAAAAAAGGTTTTANTTT
TTAANCCAATTAATAA

Sequence 2718

TABLE 1
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TCGCGGTGGCGGCCGAGGTACANAGTCTTTTGCTTCCTCCCACCCCTAGGGGGAAAACT
GCTTTGTGCTTTGGGAAGTTGTCTCTGAAACCCGGTNGNACAGATTGTACCGTCATTGTA
CCAGGACCTTACNGCANCGGNNANGCNCCGGGNGCAGGGCATTNGGGGGNCCTTGGCCA
AGTCATTGNTTNGNGAAATGNGGAAGGNGGGGATCTTTTACCAAGGAAAGGGGTATGGAA
NGTTANGNAGGNTTCCCNGGTGTAAAGAAAAGGTCCCAATGTNATNAGGACCCCCCTGG
GAAGTTAAANGTCCCCCATGGTAAGCGGTCCCAAGAGGGTTNTTGTANTNTAANGGGA
AGNGGNGATNTGNGGNAAAAAAAGGGATTGNNAAGANCCCAAATTTACGNNGGANATC
CCTTTGGGNGGNGCCCCCTTTGGNGTGGAAGAGCCNCCCGATTNTAAANCCAAACCCG
TGCTTACTTTCCCNNTCNCCNNAATTGGTTTTTAAAAAATTANGNACNCAACCCCCCT
TTTTTTAANGGGNAAAAAAAAAAAAATTTTTNCAAACCNAANGGGTTTTCCCCC
CCCCAAANTTNCCCAAACCAAAAAAAAAAAAAAAAAAATG

Sequence 2719

GCCGAGGTACAAACGGGTTTCCCACCTTGCCAGGGATCCTGGGGACAACAGATGTAAAC
TCCTGAGTCTCTGTGTGTGTGCCTGAGTGGCCAGTCTGCCAGAACTCCACACAGCTCTGT
GTATTGAACCCAAGGCCTTGGTGGCCTGGGCTCATGAGCAGGTCTCCTGATCCATGGATT
GCAGAGATCCATGGGAGAAGCATGATTTCCAGGCAGGGTCGCACATTCACTCATTGCTT
CCCTTGGCTGGGGATTGGGGTTCCCTTTGGCTCTGTGCCACTCCTGGGTGGGCCATTGCCT
CACCTTCTTCTCCTCAGTTCTTCGTGGGTTGTTTGCCTAGTCAGTCACAATGTGAGAACC
TGGCGATTTCAGTTAA

Sequence 2720

AGGTACACTCGCCAGCGGTTTTGCCACAGGAGTGTACGGGAACAAAGGAGACAGGCTCAT
TTATAATCTGACGCGGNCACCCTNCTGCTGCGTTCCGTTTCCATTGGCTGGGACNGNACC
TCACCTTCTGTATTTGTCCCGACTGGCTAGCACTTAGAACTTTTTAAAAGAGGCAAAGGC
ATACAGAGANCAAAGGAAGGAGGAAGTNACTTGTGGAATATTGAGAAAGGTAAAAACACC
TTTAAATAAGGAAGAGGAACAGGCTATGACCTAATGCTTGTNGGATCAGTATAAGCATG
TTAGGGCAAATATTANGCTAAATTGTGGGAGCTAAGAACATAAAGTATATTGATTTTTT
ATTATGGCTAGCA

Sequence 2721

AGGTACAAATTTAATTTTTCTGCTTGCCCNNGGAAACAAAGCTTCTGTGGAACCATGGAAGA
AGATGAAAATGAGACTGGCAAAGAACAAATGCTGAATCTGAAGAAGAGGACAACCTTGGG
CAAATAATCTGCATACTTTTAATTGGGAATAAGATGGAAAATATGAATGCTAAATCAAAT
TTTTAANNNATACACCACACGATACGACTCCCCGCGTACATCTTTGCTGTGGCTCACAG
ATTGTTCTCCCATTTCCCCTTGCCGCTTTTTGCCTATCGATGGGTAGCAAGAGTCTTTGA
AATAAGCCCATTTGAGCCCTGGATAACAAGGGATAAAGTGGAGCGGATGCACATCACAGA
CATGAAATTGCCTCACC

Sequence 2722

CCGGGCAGGTACTTT
TTGGG
GGGNAAAAAANNTTTNNNAANANNNGANAAAAAANNGGGGAACNNNNNGGGGNNCNC
NCCCCCNAAAAAANGNNCCCCCCCCCNNAANNNAAAAAANNANTTTTCAAAAAANAAAA
AANGGGAANTTTTTTANCNAAAAAAANNTTTNTNTAAANNNNNTNTNNGGGGGNGGNGN
TTTTNAAAAAA

Sequence 2723

GAGAANGACACCATGTGCCTCAGAACTGCTCGGTGACAGCGGTGATAGCGAGCCACGCAT
TCACAGGGCCACTGCTGCTCACAGAAGCAGTGAGGATGATGCCAGGATGATGTCTGCCTC
GCGCTGGCTGGGACTCTGATCCCAGCCATGGCCTTCTCCTGCGTGAGACCAGAAAG
CTGGGAGCCCTGCGTGGAGGTATGTGGCTGGAGTCAGCTCCTCTGAACCTTCCCTCACTT
CTGCCAGAACTTCTCACTGTGTGCCCTGGTTTGTATTTTTGCAAAAAAAAAAAAAA
AAAAGTACCTGCCCCG

Sequence 2724

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACTTTCCAATGA

TABLE 1

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ATGGTAACTGATCCAGGCACGTTATCACACTTCCTAGTCATCTCCACCTTTCCTGTATTG
CCTGTGGCTTGTGTTTAAAGATTAAGAATCAAAGAGATTAAGAAGTATCACTTCAAGTCT
TGCTCTGCTCACTTCTATGTTTGCAGTCAAATTATTCCTTATGTTGGTGACCTAAAGAGA
ATTACTTTCATTCATTTCACTTCCCCCGTAGCAGATGGAAGTGAGAAACCTCTGAGAAAA
TGAAAACATCCTTAACCACTATCTTCCCTTTTATTTGATTATTTATGTCAGAAATTTG
CAAAAGTTTTTTCTCCTCCTTCTCTTCCCTTGTGCTTAACTTTTAAATTCATGCCATAT
GCAGATATCCAATTATGTGCATCCTGTGAATAAACACGCTTGGTCACTGTCATATTT
GAACCATCTCATCAGAGATGAATAATA

Sequence 2725

CCGCGGTGGCGGCCGAGGTACGTATTACTGTTTCCATTATATGTTACAAATGAAATGAA
CACATTCTCATAAGTTAAAAAATATAGAATATATATTTTTCTTTTCTTTTCTTTT
TTTTCTGAGACAGAGTCTCGTTCTGTCACCCAGGCTGGAGGCTAAGGTGGGAGGATCAC
TTGAGGCCAGGAGTTTGAATCAGCCTGAGCAACATAGTGAGACCCCATCTCTAAAAAA
AAAATAAGAAATAAAAAATCAGCGACGAGGCATAGCGGCTCATGCCTGTAATCCCAGCACT
TTGGGAGGCCAAGGCAGGCAGGTGCTTGAAGTCAAGGAGTTAAGACCAGTCTGGCCAAA
TGGGGGAAACCCCTTTTTCTTAAAAAANTNCCTTTTTTTTCCCCCATNGGGGGAAN
NCCCCNTTTTTCCCCNCCNCCNNGGGGGGGGGGGGGGGGAACCCCCCCCCCCCC

Sequence 2726

CCGCGGTGGCGGCCGCGCCGCGGAGGTACTTTTTTTTTTTTTTTTTTTTTTCCAAAACAA
AACATGCTTAGCATGCACACTTTTACCACTTTTTTCGAGNGGAAAGTTTATTGGCAATAT
TAAATTTACCCTAGATAGGATATGAGAATGTTTTGATAAATCACAATTTATAGTATATT
AATGCCATGTGAGAATTTTGTTCCTCAAGTAAGAGCTCACATGGAACCTTGGTCATTAAAC
CTTAAAGAAACCTTTCTCACATATCTATAGGCCTCAAATTGAAATAATCTATAAATGAAT
TTGTAGATTTCTTTTAGTTTAATTCCTGAGTATACAGGGCAAAGCTTATNTCCTTTAT
ATAAATCTGCTTGGTCTAAACTGATATATCTTCACGTTGAGGTTTCATCTGAAATG
CACCACGTTTGCTGACTTGCTTCAATATGAATTTGTATGGCTATAAAATTGNGC

Sequence 2727

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTCGGGACTTTAGATA
GCTGGATTATTCTTCTTTTCTTTTGTCTTTCATGTAGTTATTAATGAGATGGATATA
AAACCAACTACTAGGTNCATATCCCCAAAAATGAAGTCAATATGTTGAAGAGATATCTG
AACTCTCATGATTATTGCAAGACTATTCACAATAGCCAAGATNGGGAATCAACCTAAGTA
TCCATCAACAGATGAGGNGATAAAGATAATGTAGCATATNTATACAACAGAAATNTATTCA
GCCTTAACANCAACAAAAATAATNTTGTCAATTAAGACAACACAGATAAACCT

Sequence 2728

GCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACAACCTCCACTAACCTGGGAACCTT
GCCCCATCCCCATAGCANCCACAGCGAGACCTGCCCAAGGAGAGTCTGAGCTCAGACA
TGCTAGCCCTGCCCAACTTGATGGGCCTTCTATCTACCCTGGTAGCTGAAGGCAAAG
GACATATACCCTTGGGAGTTCTAGGGCCCCGCCATCGCCAGTTCCTCTCCATACTACCA
CAGCTGATGCTCTCTGGGAAGTGCCACCTCCAGCAGCAGGCCAATCAGCACAAAAATAG
AACATTAACCAACCAAAGCTAANAACCTCAGAGAATCCATTTACCCCCCT

Sequence 2729

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTCCCTGTATTTTCTTTTCCC
GAGATGAAGTCATGCTCTGTTGCTCAGGCTGGAGTGCAGTAGTGATCTCGGCTCACTG
CAACCTCCGCTTCCCAGGTTCAAGCGATTATCCTGCCTCAGCCTCCAAGTAGCTGTGAT
TACAGGCATGCATCACCATGTCTGGCTAGTTTTTGTATTTTATGAGACAGAGCTTCA
CCATGTTTGCCAGGCTGGTCTCAAACCCCTGACTTCAGGTGATCCACCTGCCTCAGCCTC
CTAGAGTGCTGGGATTACAGGAATGAGCGACCACACCTGGTTTGTCTTAAAAAACATC
TTATATTTCTCTGCTTAAACGNGCTCAATGTTGAACATGTGAAATATAATAACTTTTCATA
ATCTCTTCTGATTCTGGCTCTATATCATCTTGGGGNCTGGTTTAAANGGAATTCTAATT
TTCTTGGCAAT

Sequence 2730

TABLE 1

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CTATAGGGCGAATTGGAGCTCCCCGNGGTGGCGGCCGAGGTACACGAGTCTTTTGCTTNC
TCCCACCCCTAGGGGGAAAACTGCTTTGTGCTTTGGGAAGTTGTCTGTGAAACCCGGGG
ACAGAGGACNCANGACAGACTAGGANNGGAGCCGNGAGGATGGGCTGCANCTGTNGAGGA
GGGTTTCANAGGANAGNGGTCNGATAGCACCAGGCCTGAGAAGCCATAGCCTAGGTGGAN
AGAGGTTTAAAAGNGACANAGCGGGCTGATTANCTGCCGTANACNCTTTNATNCCATGTT
ANATAAACATNNTTNAAAAACCTTCNTNTTGTCCCAATNNTANAAAAATTAANCCCGG
GCNATGGGGGGGCGTGGCCCCCTNGTNATTNCTNTTTTAATNAANAGAAAGGGNTTGNCC
CCGGGTNANTTTTANTTTTNTNACTTTNNGGGNGGTTTNTNTTTTATNNTTNTNANAAAA
ANAATTGGGGNGNTNTTCAAANNNTTTNNTTGTNNAATNTTTTATATTNTTTTTTT
TTNANCTNNCCNTNNNAACAAAATTTTTTTTTNTNTNNCATATAAAAAAA

Sequence 2731

GGAGCTCNCCGCGGTGGCGGCCGCCGCGGCAGGTACTAGTTATTTTAAATCCACTCATA
ACTTATCGGCCAAAAGTAGTCACATGGGTCCACNTAATNACAAGNGGAGCGGGAAGTGCA
ATCCTACCTTGCTGGGGAAGGTATAGAGATAGACCAGCNCTAATGACTACCACACTTNG
CTAAGGTNACATAATAAATAAGCATCAGGACATTATGTGTGGNGGCTCATGTCTATAATC
CCAGCNCTT

Sequence 2732

CTATAGGGCGNATTGNAGCTCCCCGCGGTGGCGGCCGTGNGCNCGGAGNTGGTATTGACA
TAGCCTTTGTAGAAACAGTGCTTGAGTTCGCTTCNTCTTCGGAATAAACTTGGTCTGA
TTCACCCCGGGCGTCCCGAGGAGGGTGACAGTGAACAGTGGAGCGATAAATCCGGCATTG
GCGGTGAGATTAAA

Sequence 2733

AGGCGGGCGGCNGCCNCNCNCCNGGTACCTGATAAAAAATTTANTNCTCCTTGGCCAGGCA
TGGNNNCTCACACCNGTAATCCCAGCACTTTGGGAGGCCAAGGCCAGCANGTTGCTTGAG
CTCAGGAGTTTGAGACCAGCCTGAGCAATATGGCGAAACCCCATCTCTACAAAATATACA
AACATTANCCAGGTGTGGTGGCNAACGCTTTCAGTCCGAGCTACTGATGAGGCTGAAGTG
GGAGGATGGCTTGAGCCTGGGAAGTGGAGGTTTCAGTTGAGCTTGAGTTTATGCCATTG
AACTCCAGCCTTGGGCGACGGGNAGACNCTNTTTTNAAGAATTTGGAAAAAAAAAAGG
GAAAAAAAAAANNNNANGNCCCTTGGGCGGNNATTTNAAAAANATGCNCCNCCCCCCCC
GGGGGNTTTNNGAAATTTTANATTTTANAAGTTTTTTCNNNCCCCCGGGGGGGGGGGGG
GGGGGGGNGCCCCNNAANNNTTTTTTTTTTTTATTTAAGGGGGANGGNCCCCCCCCNAA
AAAAAANATNTTTNTTTNTNTNNCCNTTNNNNANNNTANAAAAAAGN
GGGGGGGGGGGGGG

Sequence 2734

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTATGAGATGGAGTCTC
GCTCTGTTGCCAGGCTGGNGTGCAGTGGTGTGATCTCAGCTCACTGCAAGCTCCACCTC
CTGGGTTACGCCATTCTCCTGCCTCAGCTTCCCAAGTAGCTGGGACTACAGGCACCTGC
CACCACACCCGGCTAATTTTGGTTTTGTATTTTAGTAGAGACAGGGTTTCACTGTGTTA
GCCAGGATGGTCTCGATCTCCGACCTNGTGATCCGCCCCGCTCAGCCTCCCAAAGTGCT
GGGATTACAAGTATGAGCCACTGAGCCCGGCTCTCTGTAGCTTTTAAGATGTTCTTAGG
TGACTTATGAGAATGAAAAATGGAGAATTTTCCGTCTTCCTGCCATGAAATCAATTAAT
GGCAATTGCTACTGAAAGCTGTTCTGTTTT

Sequence 2735

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTGG
GGGGTTGCTATTATTGTTATTGTTCTAGATGAATGTGNGAAGCCAAATTATTCAGTGTCT
TTAAAGACCATATTAATAAATCCTGCCAGGCGCAGCAGCACGTGCCCATGATCCCACTA
CTTGGGAGGCTGAGGCAGAAGGATCGCTGAGTCCAGAAATGCTGGGCTATAGTGCCTA
AGTCAATTGGGTATCTGCACTAAGTTCCGCATAAACGTGAGGGACCACAAGGTTGCCTAA
GGAGAGGTGAACCAGACCAGCCTGGAAACAGAGCAAGTCAAACTCCTGTCCTGATGAAG
TAGTGGGACTGCACCTGTGCATAACCACTGTACCTGCCCC

Sequence 2736

TABLE 1

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GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGACAGACGAGATCTCGAT
CGAAGGCGAGATGGCGGACGTGCTAGATCTTCACGAGGCTGGGGGCGAAGATTCGCCAT
GGATGAGGATGGGGACNAGAGCATTCAAACTGAAAGA

Sequence 2737

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATTAACAAACAGTTTAT
GTGCAAGGTGTATAAGAAAAGTAAACATACCTTTGGTAAAAAGATTATAAAGGGGCATA
AGAATGTGGATTTTACCTACATTAAAGGGTTAAAAACAATTATTGTTTTAAAGTTTAA
GCAAGTTTTAAACGTTAATTATAAAGAAAATTCTGTGTGTAACATATTAGCTAAAGTT
AAAAAGGTATCATCCAGTTTTCTGTGAACCTGGACATTAAAGTAAAAAATGCCACAGGTT
TTTCTTAAAGCATCAACCTGCTCTTAAACAAAATTATAAAAGGTTAAAAAGAGTCTATA
AAATCTTACCTTATGGTCAAACATGAAAAATTGGATAAATATGTCTCAAGGGTTTATTAA
AATTCAGTTTAAATTAATAACACACTAATATAAAGGTAAATTTAGCTTATCTGGTAT
AAAAATCATACNAGAAACATTATTAATATNAAATGGGGT

Sequence 2738

TCTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTT
TTTTTTTTTGAGACAGNCTCCCTCTGTACCTAGGCTGGAGNGCAGTGGNACGATCTTGG
GTCACTGAAACCTCCGCCTACTGGGTTCAAGCAGGTCTCCTGCCTCAGCCTCCCCAGTCG
CTGGGATTACAGGCACATGCCACCACACCTGGCTAATTTTTGTATTTTAGTAGAGACGG
GGGTCTNACCATGTTGGCCAGGCTGGTCTTGAACCTCCTGACCTTAGCTGATCCACCTGCC
CTGGGCTCCCAAAGNGCTGGAATTACAGGCGTGAACCACTGNACCCAGCCNNTTGACCTG
TTNTTATTATTTGNGGTTAATGCCAAATNTAAAATAATGTTTATGTATAAAGCCCCAT
NTCAGAGGGGGGAANTTTTTTAAACAANAATTCTTTTTTTTAAGGAAAAAAGGTT
GTNTTTTTGTTCANCCCTNTTTATTCAANGGNTNANCTTTCANAAAAATGANTAATA
ATTCCTTTTTTTCC

Sequence 2739

TNTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTACGAAGCCATCTTGGCT
CTGTGGAACCAGCTCTACATCAACATGAAGAGCCTGGTGTNCTGGCACTACTGCATGATT
GACATAGAGAAGATCAGGGCCATGACAATCGCCAAGGTATGTCCTCAGGGCCACTTAGGC
TGCTTGAGAGGAGGGCAGCGCTGCCCCCGCAGTGCCTGTGTCCAACAGTTCAACCTTCT
TGCTGTGTAGCAGTGCTTTTGTGTCTCGTNAAGCAAGTCAGCTCACCCTCCTTAGAGGT
TCTGGTCTGTCCAATAGAGAACGGGNGGGATTAGCATATGGCTGATTATGAGAGAAAGAA
GCAATNCTAATTTAGGGTGGCCTGACAAGCAAGCCAGAATTGCCTGTGGAAGTTATTG
CACTCCTGTAAGAATTCTGGACCCTATTGCTCCTTTGATGTAATGGAAAGTTAG

Sequence 2740

TNTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACGCGGGAAGTGA
ACTGAGGGCCACCCTGGGAGGAAGCCGACTAGGCGAATTCATTACTGACCGGCCTGGGC
TGCTCTGAGACATGGAGGAAGCCAGTGAAGGTGGAGGAAATGATCGTGTGCGGAACCTGC
AAAGTGGGGGTGGGGGAGTTAANANTATTATCCCANATTGNGGGGGCGGGATCCTGCCC
CGGGGGGAAAACCTTGGAACATCTCCGCAATAAGACAGA

Sequence 2741

GGGCANGGTACCCACTTGGATGACTGGGGAGAAGGGCTGGGCTGCTGCTGGGGAGTAACA
CAGGCCTTGGGGCAGGGTTCAGGAGTTCATTAGTCTGGAGTCCAGATCGCCACCCAGGGC
CCAGCCTGATGTAGTGTTCGCGTCTCTCAGCGCTGCAGTTTTCCGATAAAGGAGAGGAC
TCCTGTGTGCCAGAGCTCTGAATGGGAGCCTCTTCTCAGTCCAGCCAGGCAGAGGGTGAG
GCTGCCACCTTATGGCCACTGGGGGAATTGGCTCTGGGCTTGGACTCCAATAAGGGGCCG
GGAGCTGCAGAGACCTCCAAAAGGTCTCTTAAGTAGTCTCCAAA

Sequence 2742

CCGCGGTGGCGGCCGAGGTACTGCCATACCTGGCTAATTTATTTTTGTGGAGATGGGAT
CTCACTTTGTTGTCCAATCTGTTCTCAAACCTTTGGCTTCAAGTGAGCCTCCTGCCTCTG
CCTCCCAAAATATTGGAATTATTGGCATGAGTCACCATGCCAGATCAAGAAAATATTTAT
GTATAATTTTATCATACCTCATTGGTCCTAATGTTTTTTGCTTGTAGGTCCCTTCTA

TABLE 1

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GAGATAGGAGAAGAGAGAGATCCCTTTCTCGGGGAGAGAAATNCAAGCCGTCCCGATCCT
CTTAGGGCTNGGAGGTAAAATCNTTTGATAACTTTGTATTNAAAACCTTTGCATCCATAGT
ATGCTAAGGCNTTNTTTANCCCCAAAAAATTTNCCTTAAAAGTTTTTTNGAATTNGCNC
AAAAAGGGCCCCNAANACCCAAGNNAAGGGNNGGNCTTTTTTTTT

Sequence 2743

CCGGGCAGGTACTTT
TT
TTTTTTCCCCNGGNNNNAAAAATTTTAANNNGNNNGGAAAAAANNCNGGGGAAAAANG
NNCCNTTNTNNNAANCCNTNAANNAAAAAAANNCCNNNAAAAANNAAAAAAACCCCAA
AANNNNNTNNNAAAAAANCNTNGGNNAAAAAAAGGGGGGNGNNANTTTNNNNCCC
CAAAAAANGGTNNGGNNGGAAAAAATTNNTTNCAANCCANAANTTNANTNCAAAAAAN
CCNTNNTTCCNTGNCCNTNAAAAAANGGGNACCCCCNGGGGGGANANAATANNAAAA
AAATTTANTTTAACCCCCCCCCCAA

Sequence 2744

GGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTGAGACGGA
GTCTTGCTCTGTGCGCCAGGCTGGAGTGCACTGGTGCGATCTCGGCCACTGCAAGCTTC
GCCTCCTGGGTTACACCACTTCTCCTGCCTCAGCCTACTGAGTAGCTGAGACTACAGGCA
CCCGCCACCACGCCCGGCTAATTTTTTTGTATTTTAGNAGAGAGGGCGTTTCACTGTGTT
AGCCAGGATCGTCTTGATCTCCTGACCTCGNGATCTGCTCGCCTCGGCCTCCCAAAGTGC
TGGGCTTACAGGCGTGAGCCACCACACCCGGCCAGTCTTGTGTCTTAAATACCATTTCC
ACATTGACACCTCCAGAATATTTATCTCTAAACCTGACCTCCAGAAGGTGCAAGCANATT
GTGTAAACCATGTCTCCACTACACGCCTAAAGGCA

Sequence 2745

CCGGGAGGTGTCCGAACAGGCAGGTTGGTGGGTAAAGGTCTTAATCTTGACTCGAGATC
TCTCCCCGGAGTTCACAGAGTAGGCGACGAAGCCGAAGCAGCTGGAGCGCGACCCGGAGG
AGTCTGACTTCTCGTTGTCTTCATAATTTTCATTCTGTTGCTTTCTTCATGGACTTGCGGC
TGGGGGAGGATCCCCGCTGGTCGCCGAGCANGCGGGCGGGTAAAGGTAGGCCGCGAGAGC
CAGGTTATNGAGAGGAGAGGAGGC

Sequence 2746

AGGTACCTGTGACTAACAAGGGGTCTGGGAGGATCTGCTGCTCCCATGCCCTCCTTTGTG
TGTTTTAAATCTGTTTGAGCCTTCTGGGCTCCTGCGAATTAGGGAGTGGCAGCTCCTCAG
TCTAACTCCTATTGNGACCAGGTTGCCTAATTGGCCCTTTGGTTTGGGCACCCACTGTCC
TTCTGCGTGGTTGGATAGATGCTGCTCCCAATGTCCCTGATCTCTTACAGACCCCTCTGA
TTCTTCACTCTTGGCTTTGAGAGCCCCCTGATGCCCTGCAGTCTTGACTGAGCTTCTAATG
GTTGATCAGACCCTTGAATGTTGAGCTCTTCCATACTAGACTTGAATATTCTCCTG

Sequence 2747

GGCGGCCGCCCGGGCANGGTACANGACATTTTCAAAGTTGCCAGTGTTACTTTAATTGGA
CTGCCTTCGTAATTCATTGCCTCTGCTTCAACAATGTGCAACTCATCCTTTGCACCAGCC
CCTAAACTGACCGTTCTTAAAGATAGCTGGTGCTCATTTTCATCATTATCCACCTTAAAG
NGATAACTCTTTGTGGCCTTTAGTTCACAACCGAAAAGATAGTTCTGGGGCCTNAGGGGG
CTCATGTCCATCGAATCTTCCATNGGGNNGCGGCACNCNNTTTTTNTAGNAAAG
AAGGCGGNCGGAANATAAAAAAACTNTCTCAAAAAAACACCCGGNGCANGGAGGGNA
NTCANACCAGGGGCCCGCTTNCCTNGGATCNTTTNATAAAAAAATNGGGGNCCTCCCN
CNGNGNNNGGNNGNAAATTCTAATNNTAAANTTTTTANCCCCCCCCCCCCCTNGGGG
GGG

Sequence 2748

CCGGGCAGGACTTGGGAAGCTGAGGCATAAGAATCACTTGAACCCGGGAGGTGGAGGTTG
CAGAGTGAGCCAAGATCGCAGCACTGCACTCTAGTCTGGGTGACAGAGCAAGACTCTGTC
TCAAAAAAAGACTAGAGAATGTCAGGGAACACATGTGTATTTTAAACAACCTTAC
TTTGCAATTTAAAACTCGAAGGACAGCGAAGGTGAAATCAATTCACGGGCCACCTAACT
TTTCAGTCTAGGACTNAGAGCTTGTANCCATNGATCTGTNNGGNNTGNACCTCGGGCCGN

TABLE 1

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TTCTANAAGTAGTNGNATCCCCCGGCT

Sequence 2749

CCGGGCAGGTACAACATGAGACATGACGCCCTTCGGGACACATGCCTGAGGTAGTGACAA
TCCAACTTTGGAAGAGTGGAAGCCCTAGTTTCAAATTCAGCATGCTTTGAGTATAAAT
AAGTTTACCTCTTTTGCACAGCAACATGGCCAATCTTCTAAGCTGCTCAGCTTACAA
GAAAAGGAATCATACTGCTAAGAAATCAAACCTTCAGCAGTCATAGGTAAAGTAAGGGAAG
TTTTNTAAACNTATTTTTAGCCCCNTACCCNGAACCCCTNGNAAATTTTNGCNAGGGTT
TTTTCAATTTTTCNAGGGACAGGTTGGGGTTTCNCTTTAAATCCANAGGGCCTTTGGAA
NACCNTGGAANAACAGACCCCTTTAAAAAAGG

Sequence 2750

CCGCGGTGGCGGGGTTTCGCCATGTTGGCCAGTCTGGTCTTGAACCTCTGACCTCAAGTG
ATCCACCCACCTTAGCCTCCACAGTGTGGGATTACAGGCATGAGTCACCACACCCGGC
CAGTAGAACTCTTTAAACCTGAAAAATCAGTCAACTTTGCAGACTAGAGGAGGATGTTGA
ACACCTATGTGTGTATTTTTTTCTTTACCAACTATGCACCTATTTTTCAGACACCTAA
AGTAATGTCTGTGAAACAGTGGGTTTTCTTTT

Sequence 2751

CCGGGCGAATTGGAGCTCCCCCNGTGGCGGNCGCCCGGGCAGGTACAATGCTTATAAAA
TTCAATAATTTGTATTAAAAATACAAAATCCNATAACAACCAGGAGTTCTTCGGAAGAAAA
AAAAATCACAAAACAACCCCAACAGTGGTGAAGAACTA

Sequence 2752

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCAAAAGCTCCAGATTATTTGAAACCA
TGTTTTCTTCTAGTCCATGGTAACAAGAAAAAGCCANTGGAAGCATCATTCCAAACAAT
AATCTCAAAGATGGTGGCAACCAAGTGTCAAATGGGGACTGCAGGCACAGAGAGACCA
CCCCAAACCTGCCTGGGTGGACGAAGCAGGTATGCTAGAATAGTCTGTCTGCAGAAAT
AGGGAACGGCAGCTTGGTGCATCTGTGCCCTGGAAAAAGAAAATGAGTTGCAATAGAAT
GACTNTAAGACAGACAATGAACCTACTNTTAAGAGAGACAGGGCCAGGCACGGTGGCTCA
CGCCTGTATCCCAGCACTTTGGGAGGCTTNAGGCGG

Sequence 2753

GGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGCAGAGACAATGGAATAAACAGCCAAG
AATGTTAAATAGCTATTATAAATATGATCCTTATGCTCATAGAGAAAAGGAAAAATATA
AGTATAATGTGAAAAGAAATGGAAGATATAAAAAGAAATGCAACTTCTAGAGGTGAAAA
TATGTCTGAAATGAAAACACCATATAGATGGAATTACCAGGAAATTAGACACTGCAGAAG
AAAAAATCCATGATGTTGAAGTATATTGCAATTAAGAACTATCCAAAATGAACTGAGAG
GGGGAAAAAGCCCCGTAATGTATGAAGAAAGCCTCAGTGACCTGTGAGACAATATCAC
AATGGCCTAACATAAGTGAATTTGGAATCCCCAGAAGGGGTAGCAGGCCCGAAAAAAT
AATTGTTGAATAAAGGNCAAAAGGTTTTCCC

Sequence 2754

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTATTTTTTTTTTTT
TTTTTTGAGANAGTGNGTGACTNTGNCACCAAGGCTGGAGGGNNGNGNAAGANCATAG
NTCACTGAAGCCTCCATNTNTGAGTTNAAGGGATCCTCCCGCCTCANTCTCCNAAGCTA
AATTTTTTTTTTTTTTTTTTTAGNAANANACATGGTTTTCACTATNTTTGCCAGGCCAG
GTCTAAACCTTNTNACTTNAANGCAANTNNCTTCTNCCTTTAANCCTTCCCAAAGGGN
TTTTGGNATANNNNTNANACNCAGNCCCTTNTNCCCTGGGCTCTTTCNTTNTTAAGAAAG
GACACTTTAAATCANTTTTTNCNCNCNCAGAGATNAATTGNGCAACAAACANTATTANGT
TGGGGTTTTATTTNAGGGTTCCTNNCCCGGNNNGGTCCCTTTNANAAAAANNNGGGAAN
CCCCCCCGGNGTNTGGGGGGANTTNTNANNNTNCAANTTTATTTATTNCCCCCCCCCCCC
NTCG

Sequence 2755

CGCGGGGGCGGCCGGAANGNCCNGGAANGGNAGTCANGCAGGGAGCGTCTGTCCGAAC
GGAGGCTAGGTAAGAATATTTACCATGAAAATGTTAAAAGACATAAAGGAAGGAGCTAA
ACAATATGGACCCANCTCTCCTTATATGAGAACGTTATTAGATTCCATTGCTCGTGGAAG

TABLE 1
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TAGACTTATTCCTTATGATTGGGAAATTTACCTAAATCTTCCCTTTCACCCCTCTCAGTA
TCTACAGTTTAAACCTGGTGGATTGATGGAGTACCTCGGCCGCTCTAGAACTAGGGGGA
TCCC

Sequence 2756

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTGGAGNGAAACAGGAGTGCTTATGGTCTGAGTGGAGTGTTG
GGAGGAGTNCCTCCCGGNTCCTGCCTTGGGGCTCACCTCCCG

Sequence 2757

CCGCGGTGGCGGCCGAGGTACATCTTCTCCTAAAAACAAGGGTAGAGCCAATGGAAAGTA
ATGGTCTGTACATAGAATGAGTTGTCGCTTGATCTTAAATGATGTATTGGTAGATAT
ACTTCCCAAGTGGATTAAAAAGTTAAACTTACAGCATAACAAAGTATTAGACTTACTGA
GGTGACTTGAATATCTCCTTTGATTTTCACTCTATTTTCTTTTCACCCATGGGAAAT
GATAATTTTAAATAAACCAAGGCTCTTACCATAGCTGAACTTTAAACTTAGACTGTCT
TTTCTGTAAACGATTCTGAGGCAAAGGGAAATGACTAGAAGAGGATGAGTAAACAATAAC
CTGAAATGGGAACTCGAGGGAAGCACAGGCTTTTTTTTGGTTTGTGTTGGTTGATNCGT
TTTTTGGTCTTTG

Sequence 2758

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGGCCGGTGGGCT
CCCTGACATCCCTTCCAGGCAACCTGAAAGCACTGAAATAGCTTATGGCCCTGTGCCAGG
GACCTTGGCCCAAGCTGCTGACCTCCAGGGTGGGGAGGGAGCTACCCCCAGGAGAAGAGT
CACTCAGACAGCAGTATGAGCAAGCCAGCCAGCAGCTCCGTGCCTGCACCCAGCTCAGGG
GAATCCCAGGGGGTTGAGATGCCAGGAAGGAAAAGGGGACAGCGCTACTGCTATGGAAT
GAGACCACCTCTCCTGTTGTCCTTCCAGCTTCTCCCCAACCTCCCTTTTCTAGT
TTATAAGACAGGAGAAAAGGGGAGAAAAGCTGGAAGAAACAGAAGTAAGATAA
ATAGCTAGACGACCTTGGCGCCCCACCTGGCCTGGGNGGG

Sequence 2759

CCGCGGTGGCGGCCGCCCGGGCAGGTACAGAAAATTAGCAAGAGACATTTTCTGCATTGT
GAGAAATCAACATAGACACCTTAAAGACCCCTTTGAGAGTGTGGCTTTTGAACTTTCA
GATTTTGCTCAGTGACCTGCTAACACTTACGTGAGAGGCTCCAGGTGTAAATAGAATCTA
ATGGCAGAATCTGTAAGTGTAAACAAGCATCTTAGGAGTGAGAGATCAAGACCACAAAAT
GTCCAGAGCTATGACCACAGCTATACCTACCCATAAAATACGATACTGGAGTAGGGTATT
TTTGCTTTTTTTCTTACCTAAGAGCTAGCTAATCAGGACAGGTGATGCAGGTTCTGGAG
CTCTACCAGGGCAAGTTCTATTTTCTTTTTTGGAGACAGAGTCTCACTGTCCGCCTG

Sequence 2760

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTCGAATATTNCTTT
CAGTGTTCTCAGATTGACTTGACCAGCCTAAGACAGATGCCAGGGACATCCTCTTNTNTG
CCTNTNAACACTTCAGTCAGATGGGAATATGGAAGGATCATATNCAAGAGGATCATATTT
TNTGAAGCCAATCCATTANATGTCAGGAAA

Sequence 2761

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTGTAGATGTTCTTTGGTATCTGGGCA
TTGAAGAATTAGGTATTTATTATAATCTTCACAGTCTGAGCTTGTTCGTAGTGGTCCTTC
TTGGAAGGCTTTCTAGATATTCAGAAGGACCGTAGGTGTTGTGATCTAAGCTGTATCTG
CTTTAGAGGGCACCCGAAGCCCCGTAATGCTCTGGTTCTTGACAGACTTCTGGAGATACTG
CCTTGATGGTCTTGATAAGATTTGGAAGAATCCTCTGGATTATCAGGCAGAGACTCTTA
TTCTCTTCTCACTTTTTCCAGAGTCTTCTATGCTGAGCTCTCTGGAGCTGGGGGAG
G

Sequence 2762

TNNCCGCGGTGGCGGCCGAGGTACTGTCCAACCAAACTTTCCACNGNGAAAATTTTCTT
GGGTGAGCCTCCAGAAAAGCCAGCTTAGTGTAAGCCAAAGACCTCCCAAGTCTGTCAC
CAATTTTTTCCCTATTACTCACCTGATCATGTGGGCAATATCCAGTTGGTCTCTGTAGA
CAATGGTCCCTCTATTTCAACACCTTTTTCGGTGACAGTGGCGATTTGAACTGGAAGAA

TABLE 1
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AGCAGAGCATTCAATAATGCCACGCCTTAAGTCCTTAAATGAAAGGTCAGGTGGAGGTC
TTCCCCAATGTGAAAATAGGAGTCACACAAGTAAGGCGNATCTGTTCTTCAAAGCATAGG
CTC

Sequence 2763

AGGTACTATAATCTCCTTCTCCACTGGCAAACAGATTATACCAGAAAAACAGCAGTTCCCT
ATGGAGAACAAATTTACAATTATCCCCAAGTATACAATGCCAGGTAATTGCTTTCGGTAG
TTATTACTTTTTTTTTTTTGGAGACAGAGTCTTTGCTCTATCGCCCAGGCTTGGAGTGCAA
TGGCTCGATCTTCAGCTCACTGCAACCTCC

Sequence 2764

GCGGNCGAGGNACAANCNACTTGGGGGGGCGANAAAAACCNGCCCCCCCCACGANGAGAAGG
GGACNANGAGAAANNNTTACACACAAGNGGGGGANNNCCCCNAAAAAACCGGGCGCAGN
GGCNACACNNNGNAANNCCAGNACNNNNGGGAGGCCGAGGCTNTTNNAAAAAATTNNT
TTNGAGGGGGGGGGGGCCCCCGN

Sequence 2765

CCGGGCAGGTACGCGGGNTTCCGCGGGGCTTGCTGGGAAGAGAGGCGAAGCCAGGTCACC
TTTCAAGGACCCAGAAGTAGGGTTTTGGCCTAGGTAACCGGGGCAGAGATGTGGTTCGAG
ATTCTCCCCGGAATCTCCGTCATGGGCGTGTGCTTGTGATTCCAGGACTGGCTACTGTT
TNCCT

Sequence 2766

ATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACTACCCTCTGCTTTTGCAAG
GACTCTACTGTGTATCTTAAGTGAGACAGGTGCATATGTATACTAGTAAATTTCTCTGC
TTTCCTAGCATTGGACAAAAACAAAATCAACAAAAGAATTGCCTCAGTGTCTTAAACTG
GGATCCTTACTAGTTGACTAGGCACCTTAGTTACTGAAGGATATGTGTGGAATTCAGTTT
TTTTCAACCTATAAGAAATATCCGGCCAGGTGCAGTGGCTCACGCCTGTAATCCCAGCAC
TTTTGGGAGGCCGAGGCAGGATCACAAGGTGAGGATTNTCAAGACCNGCCTGGCCAA
CATAGTGAAATTCCTGNCTTCTACTAAAAATN

Sequence 2767

CGGCCGCCCGGGCAGGTACTATTACTAGGTTTATTGTTTCCAGAGGGGTGAAACGGGGCT
TTGGAGAGGTTAAATACTTGCCAGGGTCACACAGCTATTAAGTGGTAAAGCTGGGATT
TACATGAGCCCAGACAAAGAACCCAAGAAGCTAAGCTATTNTCTTGTAACTNCAACA
TAGGAGGCAAGAAGTGAGGTATTATACAGTTGAGGAGATA

Sequence 2768

CCGGGCAGGTACGCGGGCATCAGCTCCGTGGGAACCTCACGAGCCTGGGGAGAGTTCGTCA
TCCCCACATGGAACCTCAGTATGGCCAACAGGCAGCCCTCTGGTGGAAAAATCAACAATC
AGTCCTTGCANCAACTTGATGGAACNCTAGTTGACCACCATAAAGATGTCAAGCCAGGCA
GCA

Sequence 2769

AGGTACTACTGCTGAGGTCTCCAGGACAGAAGTCACCTCCTCTGGTAGAACATCCATCCC
TGGCCCTTCTCAGTCCACAGTTTTGCCAGAAATATCCACAAGAACAATGACAAGGCTCTT
TGCTCGCCACCATGACAGAATCAGCAGAAATGACCATCCCCACTCAAACAGGTCTTTC
TGGGTCTACCTCACAGGATACCTTACCTTGGACACACCCACCACAAAGTCCCAGGCAAA
GACTCATTCACTTTGGCTCAGAGATTTCCACACTCAGAGATGACCACTCTCATGAGCAG
AGGTCCTGGAGATATGTCATGGCAAAGCTCTCCCTCTTCTGGAAAAAT

Sequence 2770

CCGGGCAGGTACAGTTGGACCTGCTGGCATTGAGGCCCTCAGGGTTCACCAAGGCCCTG
CTGGCCCCCTGGTCCCCCTGGCCCTNCTGGATCTCCAGGTGTAAGCNGTGGTGGTTAT

Sequence 2771

CCGGGCAGGTACTGTAGATTGAGATATAACAAAAAGATGATTTCTGAAATAATATTGGGA
AAAGAATTTACCGGATGGTATTTTGTATCTTGCACACCTCTGTTGTTATGATGCTATAA
GGCAATCTTGTCCAACAGCAGCTCACAGGCCACATGCCACCCAAGATGGCTTTGAATAG
GGCCCTATACAAATTCGTAAACTTTCTTAAACATTATGAAATTTTTTTTTTTTTTTTTT

ACAATAAGGCTCTTGAAAATTGTCATTACTTGTGTTTTCTATACATTCATCTGTGTGAA
AGCCTTTTTCTTCTTTGATTAAAAAAATTAACATACAGTTAATGGTTAGAACTTAGA
ACTAC

AGGTACACTCAAAGGCTATGTTCTCTCTCAGGACTCAAGATGAATTACTGGCAGAATTCC
TCACTACATCCTTTAATGGAACCTCTGTCGGTCTCATCATCAGTGCTTTCATATTCTG
ATTCTTCACTAGATAATTCCTCATCCTCGTCTGGCAAAGGAGTTTCCTCAGGTGGCTGAG
GAGATGTGGGTGGAAGAGGTGCATGCAATGGCATATAGTCTTCATACATGGGAGGTGCGG
CAGTAATTTGGTCCAAAAGGTGTGGGCAAATTCATTTTATTCATAAGATGAAGGACCTGTN
CCTGCCCGG

CCGCGGTGGCGGCCGAGGTA

CTCAATGTTTAGCTCCCACTTAGAAGTAAGAACATGCCCA

GCACTTTGGGAGGCCGAGGTGGGTGATCATGAGGTCAAGAGATC

NAGACCATCTTGGCT

AACAANGTGAAACCCTGTCTCTACTAAAAACATAAAAAATTGGCCCGGGTGTGGTGGTGG

GCACCTGTAGTCCTAGCTACTCGGGAGGCTGAGACAGGAGAATCGCCTGAACCGGGGAGG

TGGAGGTTGCAGTGAGCTGAGATGGTGCCCAACAAGAGGGAACTNCTTNTNAAAAAAAA

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GGTCACCCGCGTNCCTTGCCCGGGGCGG

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGAATAAAAGACCATTTTTATTCTA
ATTTAACTCAGAAATTATTATGCTTATTCAATTTAACTTTTCGCTGAAAGGTTAAAGA
GATAAGAAGGACAGATTATAATTGCTTAATATTGCTATGGTAACTTCCATTCAAATACCT
GTGAGTCACCAGAAGTCAAAAAGGTAGCCAGCATTGCAACACAGGATGGATCATGCAACA
GAACTAGCACCAGGTTACCTTATCTTATAATATTATTTGCTGTTAAAATGAAATTTAA
AACAGCACCAAAAGTTAAGTTGGGGCTAAAAGTGTGTGCAGGAAAGATTTCATATAGCA
G

TGGCGGCCGCCCGGGTNGGTACCAAAGCCAGATCCTCCTGTTTTGTAGCAGGAAGCCCTT
TATTAGTTNNTCTCTATCAATCCATCTTTNATAATNCCAAAAATAGGATAAG

CCCACGCGGGCGAAATTTTGGGGAGGGCAAAACACCCCCGCGGGNGGGCCGGGGCCCCGCC
TCCNAGTAAACCTAAGAGGGGGAGGNTNTTCCAANNCCCCGCAGTNNNTTAAAAANCCCC
ATCAAGGCCCNAAANCGBAANAACCCGGGGGGGACCCATCTNAAGGGGGGGGGGGGGCCCCC
CGNGGNACNCCCAAGCCAANNANGNNNCCCCCGNAAAGNNGAGGGGGGGCGNAAAANA
GGCAGCCGCCNCNNGCCGNAAAANCAAGGGGGNCCAAAAAGNCAGGGGGGGACCCNG
GGCGGGGGGAAAAAAGGGAAAAANCCCCGCGNCCAACCAAAANNNCNAACAACCAAAACCA
ATAACCAAAAGCCCCGGGGGAAGGCCAAATAAAAANNAGGGGGNNAAAANGCCCCCGGGG
GGGGGGGGC

[illegible]

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTT
TTTTTTTTTTCCNCCCNAAACCAGTTCCTAACCGCANGNCAATTAGTTTTNAAAAGTCTCT
CTCTTCTCATGTTTTTCTGCTTTGAAACTCAAGNGNTCTCTTTACTTAATANATCAA
GATCCCAACACTAATTTGACATTAATCAAGACTCTNTACAAGTNGACTATCNCTAACNGG
CTGGGGAAGCTTCTGCGGAA

Sequence 2779

TABLE 1
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ATTGNAGCTCCCCGCGGTGGCGGCCGAGGTACATTGCTGGCCTTTGCCCAAATTATGCTT
NCCCCATTTGGTATGACCTGACACCATTTGTGATCAGTCTGATGACCTGGCAGCATCCCAT
CTGCCTACCCAGTTCACNTTGTCTCCATTTAGGGCCTCTTACAGGCAACTNCTNACATA
TATTTTGGACACTGACTCATGCCTTCTNAGGCTNAGCTAACATCAGCCCATTGATTGATN
CAGCAAGACAATTTGAGAACCCTATGTGCTCTGCCAGAGTGAATAACAAAACCGCAAGT
ACCTNCCNGGGCGGNCGGTCTAGAACTAGT

Sequence 2780

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTTNTNCCTAACCCAGTTCTAACNCAAGTCAATTAGTTTTTCANAAGTCTCT
CTCTTCTCATGTTTTTCTGCTTTGAACTCAAGNGTTNTCTTTTACTTA

Sequence 2781

GGGGGGGGNTTTGGGGGGGAAAAAGCCCCGGGCGGGAGNGGACAGAAAAAGANNTNGGG
GNNNGAGGGGGTTAGGAGNAANCCNNGNGGGTTTTCCNAAACCCCGAGNGANGCCGGG
NCGGCNNGCGCGCANNGGAGGGCAGNGCTATGNANCCGNCNNGGNACNCCCAGGCCCN
GGGNNCCACGNGGCCCNCCGGCACGNACNGCCGCNAAACCNCGGNAGGNCAGGCGAN
GNANCCNCNCGCANAANNGAAGGAAAAAAGGGGAAAAAGCGGGGGCAAAGAACCAACAAC
NCNGGGGGGAACCAACAAGCNAGGGAAACCCGNGAGAANAANANANCNGGGGANAANNNNGG
GGNGGANAGNAANAACAAAGGGGAAAANGGCCCGGAGGCGNGGAAAAACCAAAAAGAGAG
GNNAACGGGGGGCGGNNAANNGNACCANNGGCGNAAAAAAAAAAGANAAGAGGGGCNN
GGNGGGGGGGNCGNAAAAANAACACCGGACCCCNNAAGGGGGANACCCNCNCGGG
GNGCCGGGGGNCNCCCAAGNAAACCNNAAGGGAGGGGNANNNCCCCCCCCCGNGGGACC
CGNANNAANGGGAAAAANCCCCGGAANGAAAGNCAAAAGGCCCNNGNAAACCGGNAAAAA
ANCNCGGGGNCAGAACCCCCCNCAANAANGGGGGGGGGGGGGGCCCNAGGGGNAAACCCCCA
AGGCCCGGGGGGGGGGNGNCCCCCNNNNCAANNNNNNNNNAAAGGGGNNCNAAAAAA
AAGCCAGCCGGCCNGCGGGNNGCGGAAAAAACNAACGGG

Sequence 2782

TCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCATGCCGATCTCTGAGAAGTTNTGTTGCA
CCACTGTGAAGGTCTAGATGCAAGCTTGGCTCCCTCAGAAAGGCGCTTCCCTTTTGCATG
GCTGAGGATCCTTGAAGGAACCTGGTCAGTCTCCGGTTCAGCTTCCGACACCAGAGTGGA
ACCCAGTAAGCACCATCAGGAATGGATTTCACTACAAGTGTGGATAACTCTGATTTTCAA
AGGAGTAGTTACTTGCAAATTACATCCTTGCTGAATTCAGGAGGTATGAAACCTATTTT
ACCATGTTAGAAAACAGCCAGGATTTTCTCATTGCTCTGCCATCATATATGTCTATGAC
TTGAGCCCTTATTTTTCCATCTGCAAAACAATAATGCCTATATGTCTTTGCATATAGATT
TGGAATCTTTCATTCAAGGTTTAGTAGGATCA

Sequence 2783

CCGCGGTGGTGCAGCGGCCCGCCGGGCAGGTACTTTTCTTCTTGAAGTGAGTTTAGATCA
CGTTTCAGCAAACGTCTCTGGAGCTCCTTCTCTGGGGAAGGAGCAGCGGAGGGCTGTG
ATCACCCTGCACTCTTCCAACCTTCTCTTCTGCTCATTACCCAGTTCATCCTCATCTG
ACCATATTACTCCAGGAACCTCCCTTTTCCCTTGTAATTCCTGTTCCATTTTGGCCAAA
CCATGGTTTGCCTCTGCTGCATTAGTTTGAAGTCATTTTTTTCCAGACATTGTGGCGGT
AGTTCCAGATGTCCGAAAAGATGAAGTTATCAGTGACGAGCAGCCAGGGCTTTTCTTT
ATGTTGATTACCTTAGGACACAGCCCAACAATGCCTGCAATTGTCATTAGCCCGTGAAG
AGGTCGCTTAGGGCTGCCACAGCACAGAGTCCCAGCTGCGCCCGTTTCTTCCCCCCCC

Sequence 2784

CCGCGGTGGCGGCCGAGGTACTAATTTTTTTTTTTTTTTTTTTTGTATTTTAGTAGA
GACGGGTTTACCTTGTTAGCCAGGATGGTCTCTATCTCCTGACCTTGTATCCGCCAC
CTCAGCCTCCCAAAGTGCTGGGATTATAGGTGTCAGCCACCGCGCCCGGCCTGAATATCT
TTTTATTTTAAAGCTTCAATAAATCTTACTGACATCTAATTGATAAAAGTTGCACATA
TTAATGTATACATTTTGATGAGGTTGGACATATGCATACACTNGTGGTACCTGCCCG

Sequence 2785

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT

TABLE 1
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GAGACGGAGTTTCACTCTTGTCACCCAGGCTGGAGTGCAATGGCGCAATTAGGGTTCCT
GCAACCTCTGCCTCCCGGGTTCAAGCAGTTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGA
TTACAGGCATCCACCACCGTGCCAGCTAATTTTTGTATTTTAGTAGAGACGGGGTTTT
GCCATGTTGGACAGGTTGATCTCAAACCTCCTGACCTCAGGTGATCTACCCTCCTCGGCCT
CCCAGAGTGTTGGGATTACAGGCATGAGCCACCATGCCAGGCTGCTAATTCTCCTTTTTA
GTGAGTTAGGGAACTGAGCCTCAGAAAACCTAAACGATTTCTCAGAAAACACTCAAGTGA
TAAAGTGGCCCCATTGGAAAGGAGGTTTTATCTTCTCATTGGCAGGCCAGNGTTCATT
GCACAATATCATGCTACCTCTTGGAATCTTTAAAA

Sequence 2786

TCTTAGGGCGAATTGGAGCTCCCGCGGTGGCGGCCGAGGTAATAATTTTTTTTTTTTTT
TTTTTTTGTATTTTAGTAGAGACGGGTTTACCTTGTTAGCCAGGATGGTCTCTATCT
CCTGACCTTGTCATCCGCCACCTCAGCCTCCCAAAGTGCTGGGATTATAGGTGTCAGCC
ACCGCGCCCGGCTGAATATCTTTTTTATTTTAAAGCTTTCAATAAATCTTACTGACATC
TAATTGATAAAAGTTGCACATATTTAATGTATACATTTTGATGAGGTTGGACATATGCAT
ACACTCGTGGTACCTGCCCG

Sequence 2787

CCGCGGTGGCGGCCGAGGTACAATACAATCTAGATGACGGTGCAGACTAAGTCAAGAACT
AAAGTTGTGCAGTAACCCGAGTTAAGGCATGAATGCGGACACACACATGCACACACACAG
CACCCATGCTATCAAGACACAGGATTTTTTCAGTTGCCTCATGAGAGGCAACCTGGGCTT
GGCAGTTAATCAGAACTGCTGAGCATTCCAGAAAATGCCCCCACGACTTTATGCTAACA
GCTGTGTGTATGTTTTAATCAAAAAATTAAGAAGAAAAAAACCTAAAAACAAAGAAA
AAAACAAACAAAAATCACCAAAAACCTAGAAACCCCTTAATCTCTTACAATGGCTCTTG
AGCATGGAACCTCATGTAGCAGCATCAATGGCTGGCTCTTTAACAATTTGGAAATAAAAGG
TTGGTTTACTATGTATTTCTTTGGTAGTCATCACTACCAAAGTT

Sequence 2788

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTGCTTTNATGTCTTTA
TGTATTTATTTTTTTTTGAGACAGGGTCTTGCTGTGTTGCCANGCTGGAGTGCAGTGGC
CTGGTCATGGCATNAAGGCTCACTGCAGCCTGGACCTCCTGGTTCAAGNGATCCTCTTGT
NTGAGTCCCTGANANAAAACCCACCCCNCTACANAAATTTNTGGAAACANGGGCN
NNAANCTGTTNCCTANGCNTGTNTGGAACNCCTGGGCTCAAGGGANCTTGTANCCTTANC
CNCCTAAAANAGCTGGGANTTATAAGGCATGANNNAATTGTANCCTGNCCCGGCGGGCCN
CTTTANAAAAAGTNGGAANCCCCCGNCCTTGCAAGGAAATTCATTATNCAACCNNTN
NAATCCCCCCCCCCCCNCCAN

Sequence 2789

CCGCGGTGGCGGCCGCGCGGCGGCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTAG
NAGANATGGGGTTTCACCATATTGGTCAGGCTGGTCTNGAACTCCTGACCTTGNGACCCA
CCCGCCTTGGTCTCCCAAAGNGCTGGGATTACAGGCATAAGCCCCCGTGCCCGGCCACA
TGGTATTATTTATATAAAACGCAAGTTAAGTNTTATGTGTGAAAACTTTTTTTGAAA
CTTTNTCAAAAAGAANTTNACTTATTNGTTAAACCNTTTTTGNCTAAGGGCCAAATA
NGNGAAAAAAANCCCNATTNNNCTTTTTANATTTTTNTTGGCNAAAAANTNAAAAAAN
ATTTNNCNNTTTTTTGGNGNNANTAAAAAAAAGGGTTTTTTNNTTTTTTAAAA

Sequence 2790

TACTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCGCGGCGAGGTACTTTTTTT
TTTTTTTTTTGAGACGGAGTTTCACTCTTGTCACCCAGGCTGGAGTGCAATGGCGCAAT
TAGGGTTCACTGCAACCTCTGCCTCCCGGGTTCAAGCAGTTNCCTGCCTCAGCCTCCTG
AGTAGCTGGGATTACAGGCATCCACCACCGTGCCAGCTAATTTTGTATTTTAGTAGA
GACGGGGTTTTGCCATGTTGGACAGGTTGATNTCAAACCTCTGACCTCAGGGGGAATTAA
CCTTCTTNGGCTTCAAAAAAGGGTGNGGGATNAACNGGGTTGNGCCCCCCCCCCCCNGGG
GGGGGAAAAAATTCNNTTTTTTNGGGGGNNGGGNNNCAANNCCCCCNAAAAA
NNNNAAATTTTTTTANAAAAANNANNCCTTTNTNAAAAATGCCCCCNCCCCAANG
NNGNNGGGNTTTTTT

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Sequence 2791

GGTCTTCTATGTGGGTGTCAAGGATATGCTCCCTCACGGCTTCCGAAGGCCCCAGCAAA
AGATCTAACATTCTTGCTCAAAGTTGCGAGAGAAAGTAGCACATGGAGTAGCTGGGTTGG
GGCGGCGGCCTCTTCTCTTCAGCTCCCTTAGCTTGGCTCCGTAAGTGGATCACTTGCCAA
ATGCTTTAGATGATTGCCTCTCAATAATTGAAAGGTGGTGGTAAGTTGTATTGCTGCACT
GTCGGTGTTAAGAGAAATTACTCTCACAAGAGCAGAGGCCTGAAGATTCTTTCTTCTGAA
GGGATGATGAGCCTGGACTCTCTGGACTCCTAGATTATGAACTCCTGCAGTGGACCATGT
CCTATTTTTTGGAGGGCGTTGGG

Sequence 2792

CCGCGGTGGCGCGGAGGTACCTTCAATACCTTTAGTTGTCTCCACACACGCGTGTGTG
TGTGAAATCTTCTACAATATCTTCCCTTTTTAGACCATGTTCACTGTCAAAAAGGTGCT
TTAAGAGCAGTCTTTGGCTGGGCACGGTGGCTCACACCCGNAATCCAGNACCCTGGGAG
GCCGAGGCAGGCGGATCACCGAGGTGAGGAGATCAAGACCATCTTGGCTAACAGGATGGT
CTTAAGGGACAGNGAAACCCTGTCTTNAACTTAAAATACAAAAAATTANNTGGGCGTGGT
GGGNACCGCNCCTGTAATCCCANCTACTCAANGAGGCTNAAGGCAGGANTAATCACTTTG
AACCTGGGAGGTAGAGGCTTGAGTTGAGCCAAGATTGCACCCACTGCACTTTCANTCCT
GGGCCGAANAANAGCCANGGACTTTCATTTTTAAAAA

Sequence 2793

CCGGGCAGGGACCNCGGGATGGTGNCAACTTATGACAGGACCCATGGGGCCCTCCCNATGC
ACACAGNACTNNTGGAATCTNATCCTTTTCCATGGCTCTGGCTCACACTTNCACAGNATT
TACTCCTAAATATGCCCCCTGNGTTCA

Sequence 2794

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACANATTTGAATGGCTTTGA
CTTTTGGCAGCTGCACAGNGCTAGGACTGGACCATGAAATATCTNTGGGCTNTGNCAATN
ACATTTGGGTTAANCTAANCCTGATCCCATGTGTTCTGGAAGAGAAGCCCCATGACATT
CAAAGTCCTTGACAATNTGACACCAGCTTTNTAACCNTATAAGGCC

Sequence 2795

ACTACTATAGGGCGTTCGAGCGGCCGCGCGGGCAGGTACGCGGGCACACTGAGGAATTATG
ACTACTATGCAAGCCGAGTTCAGAATCTATTAATAATGCACTTGTTCTTAAGGGAAAG
TTTCATTTGGCCGGGCGCGGTGGCTCATGCCTGTGGTCCCAGCACTTTGGGAGGCCGAGG
CAGGTGGATCACTTGAGCTCAGGAGTTTGAGACCAGCCTGGGCAATATCGTGAGACCCCA
TCTCTACAAAAATACAAATTAAGTGGGCATCCTGTGATGCGCCTGTCGTCCCAGCTACTT
GAGAGGCTGAGGCAGAGGAATCTCTTGGGCCCGGAAGGCGGAGGTTGCAGTGGGCTGGGA
TCGTGCCACTGCACTCCAGCCTGAGTGACAGGAGTTAAGCCCTGTCTCAGAAAAAAGA
CAAAAACCCAAAAAGTACCT

Sequence 2796

TACAGAAGCCGGGAGCATAAAGACGTATAAGCCTNNGGGGTTGCTCTAATGTAGGTGAGG
NTAACATNACATTANATNTGNAGTTGNCGCCTNACTTGCCCCGCTTTTCCAGTTCGNGG
TAAACCTTGTCNTTGCTCAGCNTGCATTTTAATTGTAATTNGGTCCAACNGCGCTGGANG
GAGNAGGCTGGTTTTTGCCGTTATTTGGNGCCGCTTC

Sequence 2797

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGATGATAAT
AAGATGCAATTTGAATCTTCATCATACGAAGGATACTTTCTAGCTTGTAAGAAAGAGAGA
GACCTTTTTAACTCATTTTGAAAAAGAGGATGAATTGGGGATAGATCTATAATGTTCT
ACTGTTCAAAACGAAGACTAGCTATTAATAATTTTATGCCGGGCGCAGTGGCTCACGCCCTG
TAATCCCAGCCCTTTGGGAGGCTGAGGCGGGCAGATCACCAGAGGTGAGGTGTTCAAGAC
CAGCCTGACCAACATGGTGAAACCTCATCTCTACCAAAAAAAAAAAAAAAAAANGTACC
TGCCCC

Sequence 2798

CCGCGGTGGCGGCCGAGGTACTGAGCCCTTCATTCGCCAACTCAGACTCTTAGCTCTTT
TGTCAACTCTGGGCAAAGGTCAGCATTGGAATCGAGCGGCCGCGGGCAGGTACATTTTC

TABLE 1
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TCTCATCCACTTCCGATTCTCTTCATTGGCTGCAATATCTTTTTCTTCAAATCCTATTTT
GTTGGCTTCTAGGAAACCAAGCACATCTTGTTGTTTCTTCTTAATCGCTGTAGAGCCAGA
GGAAGATGCAATATATACACCGGATCACCATCCTGGGAACAGCGGCTGCGGTTGTTTGGG
TCCTGAAAAGGGCTGTGGAGCAGCTGCAGCAATGGCTGGAATCCAGCTAGGGGCTGAAAC
AACGGTTGGCAGAGAAGGGTGGGGGAAGTGGGAAAAAGGAAGAACTCGCCAGAAGCCCCG
CCTTCGNCCTTAGCAAGCTTCCACCGAGCTCTTCTAAGCGCTTGAGTTNCAGCCAAAAAC
CCCCCCCCG

Sequence 2799

AGGTACTAACCTCTTACCTTCCAAGGTGGTAGAACATGCTTGAAAAGATAGTAAGTGAAA
AGGGGTAGCCAGTGCTTTACTCACAAGACTGCTTGAACATGAGACTCAAGGAGGGACCTC
AGCAGGCCTGGGGTGTTCAGCAACTATTCTGGCCGGGGCATCTTGCAAAGGAGTTGCTG
TGACAGTAAGCTCTTCCACTTTGAGACCGTCACCTCAGCCACGGCTCCACCTGGGCTCA
GGAATGGTCAGGCAACACGTGGGGCCAGGATGGCGGTGGATGACTAAACTGCCGAAGAC
CGCGCCGCTGCGACTACCGAAGTACCTGCCCG

Sequence 2800

CCGCGGTGGCGGCCGCCGGGCAGGTACAAGTATGCAAGTTTTCTGTAAACAGATTACTT
TCAAACAGTTGGGAGCCCCAGGGAGATAATAGAAGGTATCCTACTCAACAGCAGTATATA
GAATGCTGTAGAAGAGGAATATTGTAAGAACAAGAACTATCTCTTGAAAATAAAATAT
GATAACTGAAATATAAATTTAAATAGGATTGGAAGCTAAAGCTAGGAAATTACCCTAGAA
TGTTTTTGTAGAAATGGAATAACCGAAGACCAAAAAATAAAATAAACTATGCTGTGA
AAGAGAAAAGATTAGCATTGTAGAAAGCGGGAAGTTGGTCCTGCTCAGATGCCGGTTTTCA
GATGCCTTATTCTAAAAAATAGNGATAGAAAACAAATTTCTACAAAGCAAAATTACAATA
AATTTA

Sequence 2801

CTACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGACGGGTGCCTGTAG
TCCCAGCTACTTGGGAGGCTGAGGCAGGAGAACTTGTGTAACCCGGAGGTGAAAGTTGC
AGGGAGCCGAGGTTGTGCCACTGCACTCCAGCCTGGGAGACAGAGCAAGACTCTGTCTCC
AAAACAAACAAACAAACAAAAAACCCCTGTAGCTTGGGATCAGCCTTCTCTTGTGTT
TTTTTTTAAAAAATAAAAAATAGGCTTCAAGTGATCCTCCCGCCATGACCTCCA
AAACTGCTGGGATTGTAGGTGTGAGCACTGCACCCAGCCGTATGTTTTTTTCTACATAAA
AAACAGCACAGGATTATCTTCCAAAGCTAACAAATATGTTCAAATAACCACAACCCCAAN
TNNAAAAAAAAAAATNAAGTACCTGCCCCGGGGCGGCCCTCTAAAACTAANTGGGATCC
CCCGGGGC

Sequence 2802

NNANGNCCNNNAGNGAGGGGAAAANGCGCGCCGGGCGNAANCAAGGACAGAGCNGNNNC
CCGGGGGAAAAGGANANNCGCNCACAANACCACACAACANACGAGCCGGGAGCANAAAGN
GGAAAGCCNGGGGGGCCNAANGAGGGAAGCCAACCCACAAAAAANGCGGGGCGCNCACN
GCCCCGNGNCCAGGCGGGAAACCCGCGGGGCCAGCNGCAANAAAGAAAAnnnnnnnnnnn
nnnnnnnnnnnnnnGNNNGCGAAAAGGGCGCNCNCCGCANCCCCGACACCNAACGCNG
NGCNCGGNCGGNCGGNNGNGGNGAGCGGGAANAGCNCACCCNAAGGCGGGGAA

Sequence 2803

NCCACCGCGGTGGCGGCCGTNCGGGCAGGTACTCCTTTCAGAGGGTCATCTCCTCCACAA
GTATTTTTTGTCTTTGGCTGGTCTGGGTCCAATGCTGTTGCCATCCCCAGCTTCAGAC
TGTTCTCCTTGTTTTGGAGAACTTTCTTTGGACTGTATCTTCAGAGACACTCCTGGTCAA
GGGGCCTCAGAGGACCCAAACGCTCTGAAACAGCGTCTTAGCTCATCGCCGAGTGTCAGC
TCTAGCTCTTCGGAGCGCTTCTTCTCCCCCGCGTACCT

Sequence 2804

CCGCGGTGGCGGCCGAGGTACAGAGAAAAATATTTTTTAAAAATCTCATCAGGCTAGGTGA
GGTGGCTCGTGTCTGTAATCCAGCACTTTGGGAGGCCACGCTGGGTAGGTTGCTTGAGT
CCAGGAGTTCAAGACCAGCCTGGCCAACATGGCAAAACACCGTCTCTACAAAAATAATAC
AAAAATTAGTGAGGCATGGTGGCACACACTTGTAGTCTCAGCTATATTACTTGAGAGGCT

TABLE 1

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GAGGTGAGAGGATCACCGTAAGCATGGGAGGCAGAAGTTGCAGTGAGCCTAGAATGCGCC
ACTGCACTCCAGCCTGGGCGATAGAGCAAGACTGTNTCAAAAAAAAAANATTTGGGGAAT
AAAGGAAAGTTCTGCCCCGGGGCGGGCCCGNTTNTAGAACTTAGNNGGATCCCCCGG
GGGCCTTGCAAGGAATTTNCGATATCNAAGCTTANTTCGANTCCCGTCCACCCTNGAAG
GGGGGGGGCCCCGGNTACCCCAAATTT

Sequence 2805

TAGGGCGATTTGGAGCTNCCCCCGGTGGCGGCCGCCGGGCATGGTACTTTTTTTTTTTT
TTTTTTTTTGGCAGCTTTCTAAGCAAATAGATTGTCTGAATTAGTCACAGAATAATTT
TGTGAAAATTCATGTTTAAGTAGCAACTACCCTTTCTTTTTTATATATTTTAAAGGNAT
TAGTTTATCTTCTTAAGTGGNGCAGTCACCTAATGTTTTCATTAATCTTCGACCTGGA
GAGNGAAATACCTGATATTTCTAGAAAAAATTCTACTCCTCTGATTATTTGAAATGCTGA
GGAAATGTCCCTCCCATAGTAAACTTGTAAATAAGGAACTATATCATATTCAGTAGCT
GNGTTCTGTTCCATCTTTT

Sequence 2806

CCGGGCAGGTACATTCTCTGTTCACTTACTTAGTTCTTAAGGATATGTGTTTATCCATTCT
GTCGCTGGCTCAGAGTTTGCTTCACTCTCTAGACCAGAGTATAATTTCAATTTGGCAGTCT
CCTATACAAATATGCATTTAAGTTTTTGACACGTACGCGGGGGACTCAACAGAAATGGG
TTTCCAGAAGAATAATGAAAAGTTGTGGGTAGGAAAATGAATCATTTGGACTCTTCAATG
AAATGGAGTGAGCCCAGGAGAGCTCAGCCAACAGAGGCACTCTGGGAACCTGTAGTAAA
GCCAGGCTGGCCAAATGCCATTTGATTTTGAACCTCGTAGGTCCCCACTCACCTCTGCC
AGGAGCT

Sequence 2807

AGCCTCACCCGCGGTGGCGGCCGAGGTACCCCGGGTGTTCCTTTTTGTTCAAAGTCTATT
TTTATTCCTTGATATTTTCTTTTTTTTTTTTGTGGATGGGGACTTGTGAATTTTCTA
AGGTGCTATTTAAACATGGGAGGGAGAGCGTGTGCGGGCTCCAGCCCCAGCCCCGCTGCT
CACTTTTCCCACCCCTCTNCTCCACCTGCCTTTGGCTTCTCAGGNCCTCTGNCTCTTC
CCGACCTTCTCTTCTTCTTGAAAACCCCTTCTNCCACAGCTTGCAGCCCCATCCTCCCC
GGGCTTCCCTNCCCTAAGTCTGGTCTGGCGGTCTCTNCTGCTCCCTCTNCTGCTCCCTCTGAGGA
CAACTNCCCCAAAGGCCCAAAGCAGTTTTTCCCCCCTAGGGGGGGGGGA

Sequence 2808

CCGCGGTGGCGGCCGCTCGGGCAGGGTACATGCCACCACGCCTGGCTTATTATTATTGTT
TTGTTTTGGAGACAAGAGTCTCGTTCTGTGCCCCAGGCTGGAGTGCAGTGGCACAATCTC
AGCTCACTGCAGCCTCCGCCTCTGGATTCAAGCAATTCTCCTGCCAGAGCAGCTGGGAT
TACGGGCACGTGCCACCATGCCCGGCTAATTTTGTATTTTAGTAGAGATAGGGTTTCA
CCATGTTGGCCAGCCTGGTCTCGAACTCCTGACCTCAAGTGATCTGCCACCTCGGCCTCC
CAAAGTGCCCCGAGGTTACAGGCATGAGCCACTGCACCCGGCCTATTATTATTAAGTCTAGT
GTTTGCTAAGTGCTTATAGATACGGACTTGCTTAAATCTTATAATAAGTCCTGAAAGAT
GGGGTGATAACCTCATTTAAGAAAT

Sequence 2809

AGGTACTGTAAATATTACCATTATTTAAATGTTGACATTTCTGCATTAAGTAGAACTT
TCTAAATGCCTAAATACCACTCAAACATGACTTAAAGAAATGAATGACTCACCCTAT
GACCTTCAAGAGTCTGATTCATAGAAAGGTTACTGGGGGCTGCAAGGCCCTCAATTTG
CATCATCTGTCTGCGTCTCTAATTTCAAACCTTCAGTAATCCATCTTCACCACCGCATG
CTATGAACCTTGTTCCTTGTCCAGGATACACACTGCAGCTTACGTTATTGGGAATGG
AAATTTTCTTGCTCAGGTAGAAGAACATCGTGGGATCCCCGAGAGGGTCACGGCGGCCGC
T

Sequence 2810

AGGTACGCGGGGGGCTCTGAGAGGAGTCTACCTTGCCTTCTTATGGGAAGGGAGACCCTA
AAAACTTTCTCCTCTTTGTCTCCTTTTTCTCCCCACTCTGAGGTTTCCCCAAGAGAA
CCAGATTGGCAGGGAGAAGCATTGCGGGGCAATTGTTCTCCTTGACAATGTAGCAATAA
ATAGATGCTGCCAAGGGCAGAAAATGGGGAGGTTAGCTCAGAGCAGAGTAGTCTCTAGAG

TABLE 1

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AAAGGAAGAATCCTCAACGGCACCCCTGGGGTGCTAGCTCCTTTTTAGAATGTCAGCAGAG
CTGAGATTAATATCTGGGCTTTTCTGAACTATTCTGGTTATTGAGCCCTTCCTGTTAGA
CCTACC

Sequence 2811

GGCAGGTACTTTTTTTTTTTTTTTTTTGAACATTGCCCTTTGATGTCCCCATGAGG
GCCAGGCCCAGGCAGAACCCATCCCATTTTATCCTTAAACTCANAAGGAAATTTGTCTAA
ATATTAAAGGATTAATATGGGAATAAAAAATGAACCTTAAACCCTGCCACTGATACACAA
GCTGTCTNTCTTAGAGTTCAATGAACACTTCAGGAGAGTATTTCCAACAATATTTAGATA
TTGGAATATCTAAATATTGTTGATTTAGATAACCACCCTAGATTTCTCACCACCCTAGAA
CATTTAGTGGGGAGACATCTTTTCTCCTTTTTCTGATAACTTGGTCAGAAGTGATTGAC
TGTGCAAATGGTATTT

Sequence 2812

NNCGGCGGCGGGGCGGGNACGCGGGNGAGCNNTACGAGGGNCAGGAANCCCAGANGCCGC
NCGACCTGGAGNCAGCCTACAACGCNTTCAACCGCTGCCGGCANGCCCGAGCCGGGGCA
CTAGCCCNNGCACAGAAGGGCAGAGNCNGAGGCGANGGCNCCNGNCCCNCGGCCAC
ACAGGCCTTTGGTNTTNTCACACAACNCACGGGGCGGCAGCCGCCNGAAAGNAGACNGNC
CCCGGGGGCAGAACANNGGGGGCGGGGCCCNCCCCACAANAAAGANGCNCNCCGACAAA
AAAAAAAAAAAAAAAAAAGNACCNCGGCCGCNCNAGAACNAGGGGANCCC

Sequence 2813

CGGTACCCAAGCTTTTGGTTCCTTTAAGTGAGGGNTNAATTGNCGNCGNCTTTGGCCGTA
ATTCAATGGGTCAATAGCTTGGTTTCCTGTGGTGNAATTTGGTAATCCCGCTTCAACAAA
TTCCACNCAACATACGNAGCCCG

Sequence 2814

CCGGGCAGGTACGTTCTTTTNGCTTTTCCTTTCNGTAAGATGGTCTTCAGAGCTNCTTAA
ACACATTTAGAAAAAGTTAAACCCCAAGACNCTTTGGGGATAGGTTAATTTTAAGANGC
CCAACCTTTGGACTNGGATTAAAGGAANTACCTTAAAAANCCCNNGNAAAAACAATTATTTT
TTGGG

Sequence 2815

GGCGGCGGCGGAGGTACAGAGAAGCCATCANTTTAGAGGGCAGCANAAAACCAGAAGCCN
GNTTTGATCCCTNAACACCAAGANGCCTNTAACAACANGNCACCAGCACCCCCAGGAAGG
CCAAGGAGTCCACAGAAAAACCTAGGGNNAGACCAA

Sequence 2816

GCGGCGGCGCGAGGNACAAGNAANCNCCTTTTTTGGGGGGGGGAAAAACCCCCCNCCCCN
NNNNCNACCCAGANGAGGAGGGTTTCNGCCCCCAGGGGAACANCNCNAAAAANCAGCNCG
GCCNNNGNCGGGACCAGNGCCAGNGGACAGCCAGNGNCCNGGCCAGANGAAAGGCNGCC
GTTTTTTTTNTTNGGGGGGGNNCGGGGGGGGGCCCCCCCCAAAAAANCAGCCACCACC
AGGNNGGGNNGGGGAGGA

Sequence 2817

AGGTACCCTGAGGTGCTCCGCTGGGGACTCTGCTCATTCTGGGGGTGCAGTTGACGGCTG
GTCGTGATCTTTCCCGTAATCTGTCCCTCTTACGGAACCTAGTCTCCCGTTCTGGCCA
TGGCCTTTCTTCTTGACACTGCTTAGGANCCAGAAAGAAGTATTGTTATCAAATCTT
AAAGCCTTAGGAAGAAAGTCNAGGGAGTGGGAAAACCAGGCTTCTGANAAAGAATACCTG
NTTGGCCACCTGNATCTTCNAGGNACNCCACGGAANTCCCGGGCCCCCTTCCAATCAGG
NAAGTTCGGNAATCTCTGATGGTCNATCGGTTTCNATGGCCAACCTGGCCAACCAAGTTTGA
AAAAAA

Sequence 2818

CCGGGCAGGTACTGTTCTGTTGGCCGAGTGGAGACTGGTGTCTCAAACCCGGTATGGT
GGTCACCTTTGCTCCAAGTCAACGTTACAACGGAAGTAAAAATCTGTCAAATGCCACCCA
TTGAAAGCTTTTGAAGTGAAAGCTTCTTTCCTTGGGGACCAATGGTGGGCT

Sequence 2819

AGGTACTTTTTTTTTTTTTTTTTTGGGTTAGGATGGTTCTAACCTGATGGGTTGTGT

TABLE 1
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TTACAGTGGGGTTTCCCCCAAAGGTTATCTTCCTGCTTCCTCTGTAAATAGGGCAGTTG
CTGCAACAGATTAAATACACTCGGGCCACCTGTGGGTAGTGGGTCAAGAATTTTGGACA
GAAAGGCTATAGGCTGCCGGTGGCCCCCGTGTGTTTGGGTGAGCACCCTAGAGCTATCC
CTTTATTCACATTGACGAAGAGGTGGAATGGCTGTTCTAGGGAAGGTAGAACTAAGGCAG
TTATGAGCAGGTGTTTTAATTCCTCTACTTGTTGGACCTCCCGTGGT

Sequence 2820

AGCTTATCGATACCCGTCGACCTTCGAGGGGGGGCCCCGGTACCCAGCTTTTTGGTCCCT
TTAANTGNNGGNTAAATTGGCGCCGCTTTGGGCGNAANTCANTGGNCANTAGCTTGGTTN
CNTGGTGGTGNAANTTGGTAATCCCGNCTTCNACANTCCACACANANNACGAAGNCCGG
GGAANCNTAAAGTGGNAAANCCTGG

Sequence 2821

CGGCCGCCCGGGCAGGTACCATCTCTTGGGAAAACCATGCTACCTCTTCTCTCTGTTCTC
TATTTTGCCACTAGAGAAATAGAAAATAAGGCTGGGAGCAGTGGCTTATACCTGTAATCC
CAGCACTTTGGGAGGCTGAGGCGGGAAGAATCACCTGAGGTCAAGAGTTTNAAGACCAGC
CTTGACTAACANTGGTNGAAAACCCNCGTNTTTTTNTTTAAAAAATACC

Sequence 2822

CCGCGGTGGCGGCCGAGGTACTCCAATCCGGGTGACAGAGGGAAGACTCTGTCTTAAAAA
GAAAAAAAATCAATAGAAATCGGTTTTTATTTATTTATAGTATGTGCTTTGAGTGGTTC
TCAATCAAATTGATTTTTCCCCCTTCAGGGGATATTTGAAATATCTGGAGGCATTTTTG
TTTGCCCCATCTTTGGGTATCATATTGGCATCTAGTAGGTAGAGGCCAGGGTTGTTGCTA
AGCACCTATAATCCACAGGACAGCACCCAAAAACAGTTACCCAGCCCAAAATGTCAGTA
TTGTCAAGGTTGAGAAGCCTTAATTTAGATGTAATGTTAAGAGTTCAGTAAATTGGCCAG
GCACGGTGGCTCACGCCTGTAATCTCCTAGCACTTTGGGAGGCAAAGGCAGGCAGATTGC
CTGAGCTCANGAGTTCGAGATCACCCCGGGCAACAAGGTGAAACGCTCTGTCTACTAAAA
TACAAATCC

Sequence 2823

CCGCGGTGGCGGCCGCCCGGGCNGTACTCCTCTTGCTACCACCTTTGTTGCAGAAGATG
AAGGGGAGAGGGAGCTTCTCCCTATGGCCTCATGGCTTCTTGAGACAGATCAGTCCAG
CCAGATACAGAGCAAAGCAGCTTTCATCACCGCGGGCCAGTTGCTGATGCCAGCTTTA
TGTCTAAAAAAGTGAAGCCTCAAGGGGGATGGAGGATAGCAAGAAGAATGGGTG
CCTTGGCCCCAGAGGCATTGTAGGGAGAGGAAGACAATGTATCTCATCAGGGTTCTCAAC
ATTATGAGATTATCACACATCACTATCTTTGGAGGGGCTGAGTGATTGAGTTATGGCTC
TGACTCCTCTCTGGGGTGGAGAGTGAAAGATGACAAANAAGGCCATCTGTCCCCTAGGA
GACACAGTTTGCAGTATAAGACAGGACANAAGAGAACAGAAAAACAAATNCAACTGGAAA
AAAGGGGTGG

Sequence 2824

AGGTACCTTAGAGCAACATGCAAAGCTTCCCTNCTCAGCAATCCCAGGTTGGGGCCCCCT
GTCTTCCTATCGTCCTACCCGTCACAACCACCACTGCAGGCTTCTGATGCTCTGTTTTCC
TCCTCTGTCTCAGTTCAGTTGCTCTGAGTTAGAGAGGAGCTCTCTGGGACTGGAGCAAAT
GACTGCACCGGCCCTCATGGGACTTCCATTTCACTGGATTGAGGGGAAAGCAGCACGTGT
TTTTGAGAGACCTTGGCAACGCAGGCGACCTTGACGTCGACCAAAANAAGAGAGATTTGG
AATGNTTGTTTACAGCCTCCGGTCAAAAAAAA

Sequence 2825

TTAGGGCGTTTGGAGCTCCCGCGGTGGCGGCCGCCNGTCAGGTACCANNNCTTAGCAN
GGAANNNTGGACAACANAAGCTNTAAATCCTCTTGATCGNCACGNTNAATTTGCACTGAC
CAATCTGTTGGCACAGTAACTGGTTATAAGCTAAATTTCTACATTTTGGCTACAAGTATN
CCAAATNCACCTTTTAAAAAATCCTATGTNAGATGCCATCTGGTGTTAATGATTTGCACA
CCCCTTAAATTGAAANTATTNCAAATAAATCTNACGGATTTATATANNATNATTAATGNN
TNTATTTTAAAAAGACAATCTGANAATAACACTTCCCCTAATTGTTGTCTTAATAATGAC
CAAGAGCTGNNGAAAAATNATTCACACTGNTACGTCGTTNTGTTGGTTTGCTCACGGGGG
AAGGGGGGTTG

TABLE 1

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Sequence 2826

GCGAATTTGGAGCNAACCNCGNGGCGGCCGAGGTACTTCGGGGAGAGNNTNTCTNCC
NTCATTITGAACNCCAGCGGCCTCTTCCCTTCCNNGGGGCTGCTTGCCCTGGGAACNCTG
GCACCTTGGGCTGNNGAAGGCTCTGGAAGTCTTCAAAGCTGGAGTCTGTCTCTCCTAAG
AAATCTGCCCAGTGCCTTAGANACAAGAAACCTGAGTGCCANAGTGAAGTGGCAGGGGCCA
AGGGAAAAAAAAAAGTTGCCCTNANCCNTNNGGGGAAAAAAAAAGNGCCCNNGGAAACCC
NGGGGGNCCCCC

Sequence 2827

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCGGAACACTTGAGGTCATGAGTCTGA
GACCAGCCTGGCCAATACGGAAAAGCCCCGTCTTAACAAAAATACAAAAATACAAAAAT
TGGGTGTGGTGGTGTGCACCTGTAGTCCCAGCTACTCAGAAGGCTGAAGTAGGAGATCG
CTTGAACCTGGGAGGCAGAGATTGCACCACTGCACTCCAGCCTGGGTGACAGAGAGACAC
TCCATCTCAAAAAAGAAAAGAAAAGAAAAGAAAAGAAAAGAAAATGTTGAGGCAAT
GAATATACAAACACATTTTAGATTAGCATTTGAATTAGTAACTGCATAAAAAAGATCCA
ACATGAGCTGACATCATCAATCCATTGAGGGCCCAAATAGAGCAAAAAGGCAGAGGAAG
AGCAAATTC

Sequence 2828

CCGCGGTGGCGGCCGAGGTACAGAAAGAAGAGTATCCATTTCAACTACTAGGTAACTGC
CTTTGATGAGCTTGATTTTACCTGGGTCACTAATTCACAGAACCAATGTAGGTGTCTGG
GCGGAGCAAAATATGCTCCAATTGTGTTTTCTTTGATAGATTCTTTCAACAGACAGTCT
TTTCTTAGCATCTTCATTTTTCTTTATTTTGTGACTTGATATTTTCAATTTACAGGCTG
CAATGGTGACACTTCCATGGTGACGGTCGTGAAGGGGCTCAAGAACCCTGAAAGCGACTA
AACAGGCAGGACCCACGAGACCACCCCGACCAAGCCGNTTCTCCACAGACGCGCGTCC
CCGCGTACCCGCCCC

Sequence 2829

CCGCGGTGGCGGCCGAGGTACTTTAANTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TT
TTTTTTTTTTTTTTTTTTTTNNGGNNGNNNNANNTNTTTTTAAAAANGGNAAAAAAA
ANNGGGGGGNGGNNNNNGNNNAAAAANNANNNNGNNNNNGGGGNNANCCCCCNCCNNNNNG
GGNANCCCCNNNNNANNNNNNTTTTNNNGGNNNNNCCCNNTNTNAAANAANCGGGG
TNAAAAAAAAAAAAAATTTTNGGGGNNATTTTTNNNGNNNCCCCCTNANCNNGGGGGG
GNNTNTTNTNTTTTTNANACCCCGGGGGGG

Sequence 2830

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTGTGTTTGT
TTTGGTTTTTTTTTTTGGCTTGACTCAGGATTTAAAACTGGAACGGTGAAGGTGACAG
CAGTCGGTTGGAGCGAGCATCCCCCAAAGTTCACAATGTGGCCGAGGACTTTGATTGCAC
ATTGTTGTTTTTTAATAGTCATTCCAAATATGAGATGCATTGTTACAGGAAGTCCCTTG
CCATCCTAAAAGCCACCCCACTTNTNTNTAAGGAGAATGGCCCATTCNTTCCAAAGTTNC
CNNANGGGGANAAAAANANCNNTTNTTTTCNGGNAAATTTTTAAANCAAAATTTTTTAAN
CCCCCCCCCAAAACCTTTTNTTTNGNNAANAAAAANAAAAAAATTTTCCCCCCC
CCNCTTTTTTTTTTTTTTTCACNCCAAAAAAA

Sequence 2831

CCGCGGTGGCGGCCGATGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTAACTTTGACTNTTTTTTAANGCCNCGGGNGGATNTC
NTTGCCCANCTCCCANNAATGTTTGCCCTNTAANTCTGTTCCACTTTTAGGNGGNAGCC
ACCAGGCCTTANCCATCCCGGGTACCTNGGCCGTTTTAAANAGGGGNATCCCCGGGN
TNNANGAATTTNNAANTNAAAGCTTNNNGAAACCNNCCCNNTNGNGGGGGGGGGGCC
CGGGCNNNAATTTTTNTTNTNNAANANGGNNAAAAANGGNCCCCCTTGGGGNNA
AAAAAANGNAAAAANTTTTTTTNTNGGNAAAAAATTTTTTTCCNNAAAAAAT
NNCAAAAAAAAAAANAANGGGNGGGAAAAA

Sequence 2832

TABLE 1

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CCGGGCAGGTACAAAGATTCTCACTGCGTGCTAAGAAAAACAGATCCAGGCCGGGCACGG
GGGCTCACACCTATNANCCAGCACTTTGGAAGGCTGAGGCGGGTGAATCACCTGAGATC
AGGAGTGCGAGACCAGCCTGGCCAACATGGCAAACCTGTCTCTACTAAAAACACAAAA
ATTTGCCGGGCATGGTGGCAGATGCCTGTAATCCCAGCTACTTGAGAGGCCAAGGCAAGG
AGAAANTTGCTTTGAACCTGGGGAAGGCCGAANGNTTGCAANTGAGCTTGAAGATTCGGC
AACNAACTTGCACTTTCCAANNCCNTNGGGNTGACNAGGANGATAAGGACCTTCCNTTCT
NCAAAAAAAAAAAAAAAAAAGGGANAAAAAAAAAAAAAAAAAGGGNTCCCTTTTNGGCCCGGTTT
TTTANAACTTAAGTGGGAATCCCCCNGGNCCTTGNGNGGGAATTCGNNTNTNNAA
AGCTTTTTTCGAATCCCCGCCCANCCNTNNGNGGGGGGGGG

Sequence 2833

CTAATTGGAGCTCCCCGCGGTGGCGGCCGGGCAAGGTACTTTCTTTTTTTTTTTTTTTG
AGATGAAGTTTGTCTTGTGCCCAGGATGGAGTGCAATGGTGAATCTCAGCTCACTG
CAACCTCCGCCTCCTGGGTTCAAGTGATTCTCCTGCCTCATCCTCCTAGTAGCTGGAT
TACAGGTGCCACCACACACCCAGCTAATTTTGTATTTTAAGTAGAGAATGGGGTTC
ACCATGTTNGGCCAGGCTGGTTTNAACCTCTGACCTTAAGNGAANCCCCCTTTGCCTT
NGGCCNCCAAAAGGGNTNGGNAATNANNAGGGGGGNNACNCNCCCCCTTNNNCNNANAA
AAAGGGGGNTTTTTTTTNTGTTGGGGGGGGGAAANATTTTNAAGGGGGGGNGCCCCC
NNCCCCTNANAAAAAAAAANANCCCCCCCCCGNGGGGANNAAAAANNNTTNTATAAA
ANANTTTTTCCCCCCCCCCCCCGGGGGGGGGGGCCCCCCCCCANCTTTTTTTTTTTT
TAGNAAGNGNNNCAANCCCCCNAAAA

Sequence 2834

GGGGNAAACCCCGNGGCGGCCGCCCGGTTTGAACCNNGGTTNAAACCCCGGNTTTNA
ACCNCANAACCGCAAGANAACGGGNGNAAAAAAGGGAACANANCAGCNGTCCAAAGAA
AACAAAANGNGGGCAAAC

Sequence 2835

GGTGGCGGCCGAGGTACTGATCATGGAACCTCTCGGGGAGGAAATGATGTTTTCTTCTAC
CCATCTTATGTTCAATTGGCTGGGGCTCCTGGAACAGAAGACAGATTTACAAAAGAGAAAG
GCACACAAATTTATGTAATATAAGTTTTACATGACATGGGAGCCTTTATAAGGAAATGAC
CCAAGGAAATGGTTAAACCTGAGTGGTTTTGNGTTAGGTTTGATGAGCAATGAAAAGCTA
TGGAGAACTATGATAGGAGGAGTGTGAGCTAAACGCAATGAACTGGGGGAAACT

Sequence 2836

TACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTT
TTTTTTTTCTCAAAACGGCCTTCCTTAGTCCTGTAAAACCTGGAATGCACATAGTCCTGT
AATGGCCATCCCAGAAGTGAATCTACATGATTATTCAAATTCAAATACCTAANAAAAAA
ATCACTTGAAGTTNTGCAACTTCCCAAATGCAAATTCCTGANAAAGAACTTGACTGAGC
CAGTTCAACTTTCTGTATTGGATTANAAATCCTATCTTGCTGGCTGGTCTGTANATTGGG
TTGCTCTTGAGTCAAATGANCTTTTTTTAAAGTTAAGCCNCTTTTCCCNTTNGGGGG
GGGGCCCCNCTNNGGGGGGGGNNAAAAAATAATTTNNCCCGGGGTTTTNTTTTTTTNCCC
CCNAAAAANCTNTTTTTTTTTTCNAANCCCCCNAAAAAANNGGNCCCCCCCCCCCCCTNG
NNGGGGGGGGGGGGGGGGTNTTTTTNTCCNCCCCCCCCCNCAAAA

Sequence 2837

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTGGGTTTTTAGTAGAGACAGGGTTTC
ACCATGTTGGTCAGGCTGGTCTTGACCTCCTGACCTCATGATCCACCGGCTTCGGCCTCC
TGAAGTGCTAGGATTACAGGTGTGAGCCACTGCGCCCAGCCCTGAGAAATAGTTCTTCTA
ATTGTCATCCAGTTTCATCTGAGTCCTGTTGTTCTTTGGATATGTGCCCTTCAGAGCA
CAGCAGGGGTTGTTCAAGTCTTCCANAAAAGCAGCTCTTGTTCTCCTCATGTGGTGGGA
GTGGAGTCAGAGCGTGGCTCAGGCCCCACATTCTCAGCTGTTTGGATCTGGGGACTCGAA
GTTTCTGGTGGTTACTTCTGAAAGTCTTTTCCAGGATAATTATTCTTGCTCGGTTTCTCT
GCATCTCTGACAGGCTGGTTTNCCTGCTTCCCCGCTT

Sequence 2838

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTT

TABLE 1

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TTCTTTTTTCTCTGTGGAAAAAGAAAGAATTTGACTTTATTTAGAAAAGTCTACAAAATA
CAGAAGACGATAACTCGCTTGCTGTAAGTCAGGAAATAAATAAATTCTAGGAGCCGGGCA
ATATTTTTAACTTTTTTTTGAGACAGGAGTTTGCTATGTTGCCAGGCTGGAGTGCAGT
GGTGCGATCTCAGCTCACTACAACCTCTGCCTTCTGGGCTTAAGTGATCCTCCTGCCTCA
GCCTCCAAGTAGCTGGGACTACAGGCATGAGCCACCATGCATGGCTAATTTTTGTATT
TTTGTAGAGACGGGGTTTCACCATGTTGTCCAGGCTGGTCTCAA

Sequence 2839

AGGTACTTTTTTCTTTTTTTTTTTTTTTTGGAGACAGGGTGTATCTGTCAACCAGG
CTAGAGTGCAGTGGCGGGATTACTGCTCACTGCAACCTCGACCTCCTGGGCTCAAGTGAT
CCTCCCAGCTCAGCCTTCAAGAGTAGCTGGGACTGCAGACCTGCACCACCACGTCCAGCT
GCCCGGTTAATTTTTTCTGTGGTTTGAAGAGGGGAGAAGGTCTCACTATGTTGCCAG
GCTTGTCTCAAACCTCCCGGGCTCAAGCAATCCTCCACTGTTGGCGTCCCAAAGTGCTTG
GGGTTACAAGGTGTGAGCCACCACCACTGGGGCTCTGCTCTGCCTTTCTGAGTTTTGG
GTTTTCTGCTTATGGNGGGGGAGCTTTGTTCCCGTTCTTCCCCACAAAGAACCAGGGAT
GTGGCACAAGCTTCCCTGCCCGTTTTCTTTAACTTCAAGTTGGG

Sequence 2840

CCGGGCAGGTACAACCTGGAAACAGCCACCGGAGAGAGAACTGTCTCGCCTTCGCCGGCTT
TACCAGGGTCATCTCCAAGAAGAGAGTGGCCCCCACCTGAGTCAATGCCAAGATGCC
CCTAGAACACCAGCGGAAGCCTCCTCCACTGGGCAGACAGGCCCTCAGAGTGCTCTGTAG
GAGCTGTAGACTGGGAAGAGAGGCCAGGCGTGGTGGCTCACTCCTGTAATCCCAGCACTT
TGGGAAAGCCAAGGTGGGCCTTGATCACTTTGANTCCCAAGGAAGTTTTGAGACCAGCC
TTNGGCACCATGGTGAAAACCTTTGTCTTTACCAAAAAATACAAAATTTAGCTGGGTGT
GGTGGTGCACACCTGTAGTCTTAACCTATTGGGGGAGGCTAAGGTAGGGATTCACTTTGAT
TCCAAGGAGGCGGAGGGTTTTGCANTTGAGTTTGGCANTTCAACACCCCTTGCAANTTNC
AGCCTTGGGGTGGACAAGCTTAAACCCCTTNTTTTTCAAAAAAAAAA

Sequence 2841

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCATGTCAATGGAGTAAT
GCTCCCAGGAGAGTTATGGCTGCTCTGCTATGTCATGCAGGTTGTTAGGGAAGTAGGGGA
AAGCTAGAAGTTACAGGCCTTACCCAGCTCCCATGCAACCCAAAAGGCCAGTCTCACTCC
CACCGTGCCCCACCCTGACAGCACCAAGTTTGTTCAGGCAGTGAGTGAGCAGGGCTGA
GAACTTGTCCCAGGCTACCAGCCTGCCAGCTGAGAAAGAAAGCATGGCTTTTGCATCTTT
TTGCCTGTTGAGTCTGCGCACTGGATTTATGCCCTCCCTCGAGTTTGGCCGGGAGATT
ACGTTTTGGTTCAAGTGGTTACCAAAGTTTACTTGGGGAGGTTTCCTTTCTTTGGGTC
TT

Sequence 2842

CNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGGTACTTTTTTTTTTTTTTTT
TTTTGTATTTTAGTAGAGACAGGGTTTCATCATGTTGGCCAGGCTGGTCTCGAATTCCT
GACCTCAGGTGATCCGCCTGCCTGACCTTCAAAGTGCTGAAATTACAGGCATGAGCCA
CGATGCCAGCCTGAGGAACAGATTTCTATATGGCAAATAATAAAGGCCAAATAAAATTA
ATGCTAAAATAGAATGAGGAAAGTATTNTTTNTTACCAGAATGGTTGTNANCANAAAT
GNTTTGACACAGGGTGGNNTTNAAAAAACCCCNCTTNNATTTTGGGTTNTNCCTGGG
GGGNTNTNGGNNCATNAAANACCNTTTTANNNTNTTTTTTNNNNNAAAAAAANTTTT

Sequence 2843

AGGTACTTTAACTTCTTTTTTTTTTTTTTGGAGATGAGTTTTGCTCTTGTGCCCAGACT
GGAGTGCAATGGCGCAATCTCGGCTCACAACAACCTCTGCCACCCGGGTTCAAGCGATT
TCCTGCCTCGGCCTCCTGAGTAGCTGGGATTACAGGCATGCATCACTATGCCAGCTAAG
TTTGATTTTTAGTAGAGACGGGGTTTCTCCATGTTGGTCAGGTTGGTNTCGAACTCCCG
ACCTCAGGCGATCTGCCCGCCTCGGCCTCCCAAAGNGCTGGGATTACAAGTATGAGCCAC
CGCACCCAGCCTAAGATCCAAGATTCTTATGTTTTCTCTCCTTGCTTTTGAACCTGCC
CGGGGCGTGAGCGGCCCGCGGGCCAGGTACCAACNAGAAACNCAAACACCTTGNCAGT
NTNTCNAGGCACCNTTCCAAAAACCAAATTTGGANAAGGTGAAACNTTAACTTNATA

TABLE 1
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TNGGCTTAAATTTTAA

Sequence 2844

ACCGCGGTGGCGGCCGAGGTACTTTTTNTNTTTATTTTTTTATTATTTTTNTGGG
GACGGAGNGNCCCTCTTGNTGCCAGGCTGGAGCGCNATGGCGTGATCTTGGCTCACTGC
AGCCTTCGNCNTCCGGGTATCAAGTGATTCTCCTGCCTCAGCCTCCCNAGTAGCTGGGAT
TACAGGCATGCNTNNACCATGCCAGCTAATTTTGTATTTTTTAGTANCAAACCGGGGG
TTTACCCATATTGGGTCAAGGCCTGGTCTCGAACTCCAGACCTCAAGGGTGGATCCCGC
CCACCTCGGCCTTTCNCNAAACCTGCTGGGGAATTACCAAGGCCGTTNAAGNCCAACCC
GNCGCCCTNGGCCANGGGGGACCTNATACTTCTTTTTTAAAAAAAAGACATTTTGTN
GGGGGGCNTCACCACCNTTATATTTNAAAATTAGGTTNCCTTGCC

Sequence 2845

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTCTCATCTTCTTTGATAATGN
GNGAAGCCAAGGATAGGCAGGAACCCCAAGTCCNTNTNTCCTGGGATTGTCACAAAATT
CCCCCTNTCCCATCGCATCTATTTTTGTTTGTNTTTTTNTTCCCAAAGAGGGAAAA
ATACCATGGGCTTTANAGGAATCATCGCTCACTGNGGGAACCTTGCCCCCTCCCAAGCC
ACCCACTGNGCCCATAAACGTGCTGCCTGTAACCAATTGTTCTGTTGAATAACAATGC
GAGCTGAGGGGCTTTTTNTGCCTGAGCTGCAAATANATTAGGCTGCTCCCTTTATGTGN
GCAAANACATTACCCAAAAGC

Sequence 2846

CCGCGGTGGCGGCCGCCGAGCAGGTACCTCAGAATGTAAGTGTATGTGGAGGTCTTTAA
AGCAATGATTAAGTTAAAATAAGGCTATTAGAGTGGGGCCCTAACTCTAAATGACTGGAT
TTATATGAAGGAGCTAGAAGAAGGACAGACACACCAGGGTCCTGTGTGCACAGAGGGACA
ACCATGTGAAGAGGCAGCAAGAGGCCAACTGCAAGCCGAAGAGAGAGGTCTCAGGGGAGA
CCAACCTGCCAGCACTTTGATCTCAGGCTTCCAGCCCCAGACCAGTGATAAAATAAT
TTCTGCTGTTTAAGCCACCCTGTCTGTGGCATTTTGTCTAGTGGCCCTAGCAA

Sequence 2847

CCNGGGCGCGCCGAGGTACCATNANGCTTGACGGGGCTGAAGCATGGTTTGTCCANAACC
CCAACCAACAGGTCTATCGNNCTCTTCTGNCACCTTTTTNCTCTTTTTCTTCTNCCC
TTGCACCTGAGGNCCTGGAAGGCCTTGATGAGGCCAGCAAACAGGCATTCTCACAGCTG
GGTTTATAGTCTTTGGCCCCCTTACTCAGTATCCTGGGAACCTGGGCCAGGAAGTTAAC
AGTGGTCAATCANAAANTNCTGAANAAATCCCCCTCCCCCTG

Sequence 2848

CCCCCGNGCNGGNNCANNTTTTGGGCNNTTTTGGGTTTTTCAGNANGGTTNGTGGAGNA
TCCCCNGNGGTTTTTNNNAAACCCCCCNCNNAACANAGACCAAANGGGGGGNNNGNAG
GGGGGNGGGGNCNNTNAGAGAGNGGGGGCGGGGGCAGCGGGGGGNAAGNNGGNNNNNA
GGGGANGGGGAGGGGCNNNCCCCANACNNGGAGGNGGAAGGGGAAAGAACGGCNAGGGG
NAAAGGCCGGGGGGCCACCNAGCNCNGGGGGNNCNCNANGGGGGAAGGAACGGGGGAA
ACCAAAGGCCCNCCCCACCCAANAANGGCCNGGGAAAAACCCACANNCGGGNAAGGA
NAAAGGGGCCNANGGCCAAGGANGGCNCCCAAGCAGGAGCGGGNNGGGGCCGCAACNG
CCCCNAAAAANGCCCCGGGNNNACCCCAAGGGGGGANGGGGGNCANAAAGNNGGGGG
GGAAGGAACNGGGCCNNAGGGNGGCCCCCNNGNAGANGNNGNNNGCGGAAANCCANGC
GCCNGGGGGGNNNANCCAAGGGGGNGGGA

Sequence 2849

GAGATGCAGTTCGATTNCATACCTANTGGGTCCCANTCCTNNNTNNGGNCNGTTGNGAAGC
CGGATAGTGACTGAGATCACTGGGTAGACCTTGTCACCTTGGCATTCTTGTCTGCCAAG
GTCCATGGCCATGGGGATGGGGACAATTTGAGTGGG

Sequence 2850

GGCAGGAACNTTCTTTNTCTTTTTNTNAAAGTNAGNGGTAATTTAAAAATCTGAAAT
ATAGGCTGGGCGTGGNGGCTTACGCCTGNAATCCAGCACTTTGGGAGGCTGAAAGTTGG
GGCNGGATTCATCTGAGCTCGGGAGTTCAAGGGACCGCTGACCAACATAGAGAAACCCC
GNCTCTACTAAAAATACAAAAATTAGCCANGGCGTGGTGNGCACCATGCCTGTAATCCCA

TABLE 1
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GCTGTTTCAGGGAAGGCCCNANGCCANGANAAATTTGCNTGGAACCCCGGGGAGGGCCGG
GAANGTTTGTGGATGGAGCCCCGAAGATCANCCAATTTGNNNANCTNNCAAACCTTTGG
GNTTGAACAAAGAAGCCNAAAAANTTCCCAATTCTTTCATNAAAATACAANGAAAACNT
TANANAAAAATTTTTTGAAAAATTAATGGGGACCCCNNTGGGAAANGAGGCCCNNTAAAAA
AAAAAAAAA

Sequence 2851

CNANCGGAAGGGGCCCCNNGGGGGGGGGGANAAGGGCAAACCCNGGCTNAGCAACCAC
ANGGGGGGGCCGGAGCCNNGGGGGGGCCAGGACCAGGGGAGAGGGAAGCCCCAGCCNGAG
GCGNNGCACCACNCNNAGCACCAGCGCACCAANACNGCAGACGAGGAAGGAAGCACAAG
CNCCCCACNNNACAAAGGGGAAACCGAGGCGCGGNNAGCGCGGNCCTGGGGACGGCCGCA
CAAGAACNAGGGGGACCCCCCGGGCGGCAGGAGNGCCGNNAGAAGCCAAAACGAANCC
GGCGAACCNNGGAGGGGGGGG

Sequence 2852

AGGTACGCGGGGATGCGCAGTCGTGAGTCCTCTTGCTTGTGAGCGTCAACCTTCTTTCCC
TGAAGTGGCTGGGGTTCTGTTTCTTCTTTGATTGACAACTTGTGTTAACCTCGCACA
TCTCTGGGCCAATTTTTGCTTGAAATGGCAGCTCCCGAGCAGCCGCTTGCGATATCAAG
GGGATGCACGAGCTCCTCCTCGCTTTCCCGCCTCGGGGCGACCGAACCTTCTGGTCAG
GCACCTGCCGGCTGAGCTTACTGCTGAGGAGAAAGAGGACTTGCCCGAAGTACCTGCCCG
GGCGGCCGCTCTAGAAGTAG

Sequence 2853

CGGNGGCGGCCCGCCCGGNGATGGTACCCTCTGTACGGCTTCTTTTNTGGAAGGGGA
ATTTCCCAACCCCGGGTGAGGCAATGCCCCGCCCTGCTCGGTGGGCTGCACCTGCTGTCT
GTCAAGCCCCAATGAGATGAACCTGTACGCGGGGGCCTGGGATCTCAAAATGGCGGGCC
CGTGCGGAACAGCGTNTGGGAGCANNATGTTGCCTNCTGAACAAAGCCGTTGAAGATG
AAGAATGGGCAAAATCGCCCCATACGGAACAAGCGCANCTNGGGAGCCCGATACCTGGC
NNGCGAACACCAACGGGAGAATTTGCCAATATGGATGTGACAGCGGTTCCCATTAAG
CGGTGATAGGGATTTTT

Sequence 2854

CCGGGCAGGTACGCGGGGTGGGCATTCTGGGTAACAGAGCTATTTACTTCCTGCGGGTGC
ACAGGCTGTGGTCTATCTCCCTGTTGTTCTTCCCATCGGACGAAGATGGCCCTGGAG
ACGGTGCCGAAGGACCTGCNNGCATCTGCGGGCCTGTTTGCTTGTTGCGGTGGTCAAG
ACTAGTACCACAGNTTTAGAATATGATGGCTTGTNGACAACATGTTGATGTCATATGNT
ATCAAAATCGAAACGGNGTCANCTCCGAAGAAGGATGGGTTATTATTGACTTGCACCTTA
GCCTNTTCGCTTTTGCATGGGGATANCCATTTNGCTCATTNATGAAGTTNCCATGTANTG
TACAGGCCCTTGGGGNTCNTTTCAAAGGTNTNNNAANCTGCAGNTCCAGTTAAACCTTT

Sequence 2855

CTTTCATGTGATCTTTGTGGCAGTGGGACAGGAAGTAGGCGCGGGCCCTCAGGTTCTCCC
TATCGAAGCGGTCTATGGAGATAGTTGGATACTCGGCCATCTGCCCTCGAAAGAACTCA
TAGCGCCGTCTGATCCAGAGTCCGGGACCCCAAACCGCAGCTGAAGCCAAGGCCAGCCC
TGACNCGCCCCCGGTACCTCGGCGGCTCTAGAACTAGTGGGATTCCTCCGGGCTGCAGG
GAATTNGATATCAAGCTTATCTGATACCGACCGACCTTCNAGGGGGGGGGCCCGTTACCC
AAGCTTTTTTGTCCCTTATAGTGGAGGGTTTAAATTTGCGCCGCTTGGGC

Sequence 2856

GGGCGATTTGGAGCAAACCCCGGGGGCGGCCGCCCGGNTTGGTACCAAAANTNCAAACNA
CCANTTTNGAANCCGGCGNNGACGNNGCGGNCCNAGCTACTCTGGAGGCTGAGNGGGGA
GGANCGCTNGAGNCTGGGAGGCAGAAGTTGCAGNAAGCCGAGATCATGCCACTGCACAAG
CTAGGTGACAGAAATGAGACTCTGTCTCAAAAATAATTAAGAGCCTCTGCCCCAACTCG
TTAAAGATTTTTATAACCACAACCTGCTGNTTCTGNGNAGATGCATCTGCATGCCAGGAG
CAGTAAATGCAATAAAANCATTTGGNTATACTTTGAACACAAAATAAACGGGTGAGGCTT
TACTTTGAAAAAANAAGAGGNCCTCGGCCGCTCTAAACTAGGGGGGANC
CCCCGGGCCGCANGGAAATCGATA

TABLE 1
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Sequence 2857

ACATTAAATTTGCGTTTGCGCTCACCTGCCCCGCTTTTCCAGTCCGGGGAAACCTTGNCGTG
CCAGCTTGCAATTAATTGNAATTCGNGCCCAACCGCTGCNGTNGGAGAGGCCGGCTNTTG
CCGTATTTGGGGCGCCTCTTCNCGCTTTNCTCGGCTTCACTTGACTC

Sequence 2858

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTCTGTCCTCAGCTTGGG
CTTCTTCCTCCTNCATCACCTGAAACACTGGACCTGGGGGTAGCCCCGCCAGCCCTCA
GTCACCCCCACTTCCCAGTCTTGTAGCTAGAAGTCTCTAAGCCTATACGTTTC
TGTGGAGTAAATATTGGGATTGGGGGAAAGAGGGAGCAACGGCCCATAGCCTTGGGGTT
GGACATCTCTAGTGTAGCTGCCACATTGATTTTTCTATAATCACTTGGGGTTTGTACCTG
CCCGGACACATCCAGTAGGCTAAGGGGATGCTTTCCTTTTCTGGGGTTTTTCGGGGGGTT
TTTTGGAGCGGGGAGAGGGATGAANGAGGTGCTCCCTTAATTTCTTTATTGAGAATGAT
GCCGTGGATACTTGAATTTAAGCANTTGCACATGGGCAGTGTCTACCTGGGG

Sequence 2859

AGGGCGATTTGGAGCTCCCCGCGGTGGCGGCCGGGCANNTACTTTGCGGTTTTTGGGACT
TGATTTTNGCAGAGGGATCGGGCACTGAAGGTGCAGTTCTCAAAATCACACCTGNAGGCT
GGCTCCTCGCTGTGGGTATCCAGGTGCTTCTGGAGGTCAATAAGATTCTTGACAGCTGTAG
TCACAACAGTCACATTTAAAGGGCCGGTCTCACTGTGACGAAAGCGCATGTGGTTGCGG
AGGGAGGAAGGCAGCGGGCAGGTGATGTACACAGAGGGCACTTATAGTGATTCACATGG
TTGCGCA

Sequence 2860

ATGCGTTGCNGCTCACTGCCCCGCTTTCCAGTCGTGGAAAACNCTGTTCTGCGCCAGCCT
GCATTTAATGGAAATCGGCCAAACCGCCNCCGGGGAGGAGGGCCGGTTTTGCCGTATTT
GGGNGCGCTTCTTCCCGCTTCCTTCGCTCAACTGGAAGTTCGCTTGGCGCTNCGGGGTTCCG
NTTCCGGGCTTGCTGGGCCGAGGCCGGGTATTTCAACCTTCAACTTCAAAAG

Sequence 2861

CCCTAGGGCGTTTTGGAGCTNCCCCCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTN
CCCGGAGNTTTNTAANAAGATTTATTTAGCAAAAATACATATAGCCATTATTGCAAGACT
TAAATGAGATGNTAAATGTTCAACCCAATTTTCTTCTGGATAAGTTTTCTTTCATAT
CCCTGTGAGTTTTGAAAACATAATACCAGAAGAAGGGGGGCCCAATTCCACAGAGAGCTC
CCAAGAATGAGTTTCTGGGAGTGAGTCTGAAGTTGAGATAAACCTTTGCTGATCTTGCTT
ACGTTCAATGCATCTGGGCAGCGTCTTTGATGAGCCCTGGCGGTTAGGCTGGTGGCACTG
AAGCAGGCCTCCAGGGTCTCCTGTTAAGCAGGATTTTAAGGCCAACCTGCTC

Sequence 2862

CATCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTAAGTGGGA
GGCTGACGCAGGAGGACCGCTTGAGCTCAGGAGTTCAAGACCAGCCTGAGCACCATAGTG
AGACCTCATCTCTACTAAAAAATAAATACCAGGCATGGTAGCATGTGCCTGTAG
TCCCAGCTACTCTAGTCCCAGCTACTTGGGAGGCTGAGGTGAGAGGATCACTTGAGCCCA
GGAGATCGAGGCTGCAGTGAGCCATTATCACGCCACTGCACTCCAGCCTGGGCAACTAAG
CAAGACCCTGTCTCAAAAAATTTTAAAAAATTTAAAAAATAAGAAAATCCAAGCTAGGT
TGAAATCTGAATGTTGAGCAGNTCAGTGAGGCACAACTTAGCTTAAGAAAGTCAACCTT
GCCCACTTGCCATTTTGAAGGTTATTACTAGCCAAAATTACN

Sequence 2863

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAAAATTAGCAAGGAGA
CATTTTCTGCATTGTGAGAAATCAACATAGACACCTTAAAGACCCCTTTGAGAGTGTGGC
TTTTTGAACTTTTAGATTTTGTCTCAGTGACCTGCTAACACTTACGTGAGAGGCTCCAGG
TGTAATAGAATCTAATGGCAGAATCTGTAAGTGTAACAAGCATCTTAGGAGTGAGAGA
TCAAGACCACAAAATGTCCAGAGCTATGACCACAGCTATACCTACCCATAAAATACGATA
CTGGAGTAGGGTATTTTTGTCTTTTTCTTACCTAAGAGCTAGCTAATCAGGACAGGTGA
TGGCAGGTTCTGGAGCTCTACCAGGGCAGGTCTATTTTCTTTTTT

Sequence 2864

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GCGAATTGNAGCTCCCCGCGGTGGCGGCCGAGGTCTAATTTGAATTTGTAAATGAGTCTGA
 TGGTATATTTCAATTTTTTGCTTTGAGGGACTGGCTGCTACATTGCAGAATATCTTATAT
 CCCTGACTGCTTTCCACTAAATGTCAGTGGTGACCCAATCCAATATTATGACAACTGAA
 CATGCTTATGCATCCCTCATGCCTTTATTTTTATTTTGGGAAATCTTTCAGCTTCAGTT
 TTTGCTGATTTATGTGATTCTTTGTTCTGCAATTCAAATTTCTGGGAGCCAAACAGTC
 TCCTTGGTTCAGATTACTGTTTTTGACTAGAGCTTCTCGCTTCAGATTCTGTCATAAGA
 TTATGGCTTAACCTATGGTTGTCCTTTGATTTGGTGCCATATGAAATAAACATTATTTT
 CTATGGCTATGTATTAAGAATTTGTGCAATTCTGTTTTCTTAGAAGGCTGAGGGTGTG
 TTGTCAGACACCATGACTGATGTGACAGGTGTATTTTATTATGC

TABLE 1

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Sequence 2870

ATAGGGCGAATTGGACTCCCCGCGGTGGCGGCCGAGTCCTACCOCTTTACTTTTTCCCCAA
GACCATCTCAGGGTGGAGCATTCTGTCTAAGAGAAGAAAGATAAGGAGGCTCCCACCCAC
CTCTCCAAGAGCAGACATTAACATCTTTGTGCTTTGAAGAGAGTGAATTTGGATAGTC
TTGTGATTCTCAAGACTAACTTCCAGAATTATACTTTAACCCCTTCCAGATATGGTCCGC
CTTTGGCATTGTGTGTACCTGTGATGGGGCGTGTGGTTTCCGGTTGTCTCACCTTTAATT
GTCAACCTCCAGTGTATGACTCTAGAAATATGAGGAAAAGCTTTTCACTTTTAAAATTG
CCATTTAAATTTAGTCTATTA AAAACAAACCTAGAGGTCTTGGGTTGCAGTTGATTTCA
AGTATATTAATTTAGTGGGTCCCNAAGTATTACATNTATTTATATTCTGGAATGAAAAG
G

Sequence 2871

CCGCGGTGGCGGCCGAGGTA CTCTTCGTAAACCATGGAGAGCCAGCCCAATGCACAGCA
GTGGATATCATCTTTCTCAGAGTCCAGTATCACAGAATCACGACTTTGTCCAGCTGCAGG
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CAACTTGTCTACTACATAGGGTTGATCATCCTGTT CAGGAAATATTTCTTTCATTTGCTC
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TGATTCACAGCCTCAATGCCATAAGGAAACTCTTT